

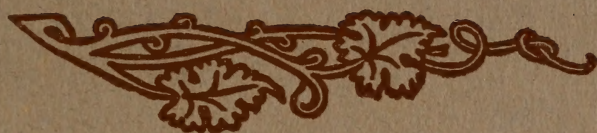
Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

62.73 RY 1911 ✓
U. S. Department of Agriculture
Hoopes, Brother & Thomas's

: : H A N D B O O K : :

Ornamental
**TREES &
PLANTS**



No. 2

Maple Avenue Nurseries

Established 1853

West Chester : Pennsylvania

INDEX

	Page		Page		Page		Page
Abies	4, 5	Corchorus	31	Juglans	16	Quercus	20, 21
Acacia, Three-thorned .	16	Cornus	14, 27	Juneberry	24	Quince, Japan	28
Acer	11, 12, 23	Corylus	28	Juniper	6	Red-Bud	14
Actinidia	42	Crab Apple	18	Juniperus	6	Red-Root	26
Adam's Needle	41	Crataegus	14, 41	Kalmia	41	Retinospora	8, 9
Advice and Terms . . .	2	Cupressus	22	Kentucky Coffee Tree,	16	Rhododendron	41
Ægle	23	Currant, Missouri . .	34	Kerria	31	Rhodotypus	33
Æsculus	12, 24	Cypress	22	Kœlreuteria	16	Rhus	21, 33
Akebia	42	Cypress, Bald	22	Kraunbia	43	Ribes	34
Alder	12, 24	Cypress, Deciduous . .	22	Laburnum	16	Robinia	21, 34
Alder, White	26	Cypress, Weeping De-		Larch	16	Rose-Bay	41
Almond	12	ciduous	22	Larix	16	Rosa	44
Alnus	12, 24	Cydonia	28	Laurel, American . . .	41	Roses	44, 47-52
Althæa	30	Cytisus	16	Laurel, Sheep	41	Rubus	34
Amelanchier	24	Daphne	28	Leatherwood	29	St. John's-wort	31
American Laurel	41	Date Palm	14	Lemon	23	Salisbury	15
Amorpha	24	Deutzia	28	Lepedeza	31	Salix	21
Ampelopsis	44	Dierilla	28, 29	Ligustrum	31	Sambucus	34
Amygdalus	12	Dimorphanthus	29	Lilac	36-38	Sassafras	21
Andromeda	24	Diospyros	14	Linden	22	Schizophragma	44
Angelica Tree	24	Dirca	29	Liquidambar	17	Sea Buckthorn	30
Apple	18	Dogwood	14, 27	Liriodendron	17	Shrubs, Deciduous, .	23-39
Aralia	24	Dutchman's Pipe . . .	42	Locust	21, 34	Shrubs, Evergreen, .	40, 41
Aristolochia	42	Elæagnus	29	Lonicera	31, 32, 43, 44	Shrubs, Standard . .	39
Arbor-Vitæ, Eastern . .	5	Elder	34	Lycium	44	Siberian Pea Tree . . .	26
Arbor-Vitæ, Western . .	9, 10	Elm	22	Maackia	32	Silk Vine	44
Arrow-Root	38, 39	Euonymus	29, 41	Magnolia	17, 18	Silver Bell	19
Ash	15	Evergreens	4, 10	Mahonia	40	Sloe	38, 39
Ashberry	40	Exochorda	30	Maidenhair Tree . . .	15	Snowberry	36
Aucuba	40	Fagus	15	Malus	18	Snowdrop Tree	19
Azalea	24, 25	False Indigo	24	Maple	11, 12	Sorbus	22
Barberry	25	Fetter-Bush	33	Maple, Japan	23	Sourwood	32
Bayberry	32	Fir	4, 5	Meadow Sweet	34, 35	Spanish Bayonet . . .	41
Beech	15	Forsythia	30	Mock Orange	32, 33	Spindle Tree	29, 41
Berberis	25, 40	Fraxinus	15	Mohrodendron	19	Spiræa	26, 34, 35
Betula	12, 13	Fringe Tree	14	Morus	19	Spruces	6, 7
Biota	5	Ginkgo, Japan	15	Mountain Ash	22	Staff Tree	42
Birch	12, 13	Gleditschia	16	Mulberry	19	Stagger-Bush	33
Bladder Nut	35	Glyptostrobus	22	Mulberry, French . . .	26	Staphylea	35
Bladder Senna	27	Glyceria, American . .	43	Myrica	32	Stephanandra	36
Box	40, 41	Gold Dust Tree	40	Myrtle-Wax	32	Stuartia	36
Box, Thorn	44	Golden Bell	30	Negundo	11	Styrax	36
Bramble	34	Golden Chain	16	Nyssa	19	Sumach	21, 33
Bush-Clover	31	Grasses, Ornamental . .	55	Oak	20, 21	Sweet Fern	27
Bulbs and Tubers	56	Gymnocladus	16	Oleaster	29	Sweet Gum	17
Butneria	25	Halesia	19	Opulaster	32	Symphoricarpus	36
Button Bush	26	Hamamelis	30	Opulus, Wild	32	Syringa	36-38
Buttonwood	19	Hardy Perennials	53, 54	Orange, Osage	22	Tamarisk	38
Buxus	40, 41	Haw	38, 39	Orange, Japan	23	Tamarix	38
Calico Bush	41	Hawthorn	14, 41	Ornamental Grasses . .	55	Taxodium	22
Callicarpa	26	Hazel	28	Oxydendrum	32	Taxus	9
Calycanthus	25	Hazel, Witch	30	Parthenocissus	44	Tecoma	45
Caragana	26	Hedera	43	Passiflora	44	Thorn	14, 41
Carolina Allspice	25	Hedge Plants	46	Passion Flower	44	Thuja	9, 10
Carpinus	13	Hemlocks	10	Paulownia	19	Tilia	22
Carya	16	Hercules' Club	24	Pæonia	32	Toxylon	22
Caryopteris	26	Hibiscus	30	Pæony	32	Transplanting, Hints	
Castanea	13	Hickory	16	Pear	22	on	3
Catalpa	13	Hicoria	16	Periploca	44	Trees, Deciduous . . .	11-22
Ceanothus	26	Hippophœ	30	Periwinkle	45	Trees, Evergreen . . .	4-10
Cedar, Deodar	5	Hollies	31	Persimmon	14	Trumpet Vine	45
Cedar of Lebanon	5	Honeysuckle, 31, 32, 43, 44		Philadelphus	32, 33	Tsuga	10
Cedrus	5	Honeysuckle, False, 24, 25		Picea	6, 7	Tulip Tree	17
Celastrus	42	Honeysuckle, Up-		Pieris	33	Tupelo	19
Cephalanthus	26	right	31, 32	Pine	7, 8	Ulmus	22
Cercis	14, 26	Hornbeam	13	Pinus	7, 8	Viburnum	38, 39
Cherry	20	Horse Chestnut	12, 24	Plane Tree	19	Vinca	45
Chamæcyparis	8, 9	Hydrangea	30	Platanus	19	Vines	42-45
Chestnut	13	Hydrangea, Climbing, .	44	Plum	20, 33	Virgin's Bower	42, 43
Chionanthus	14	Hypericum	31	Poplar	19, 20	Walnut	16
Cinquefoil	33	Ilex	31	Populus	19, 20	Weigela	28, 29
Citrus	23	Indian Bean	13	Potentilla	33	Willow	21
Cleadrastis	14	Itea	31	Privet	31	Wistaria	45
Clematis	42, 43	Ivies	43	Prunus	20, 33	Xanthoceras	39
Clethra	26	Jasminum	43	Pseudo-Tsuga	8	Xolisma	39
Colutea	27	Jessamine	43	Purple Mist	21	Yellow-Wood	14
Comptonia	27	Judas Tree	26	Pyrus	22	Yew	9
Coniferae	4, 10					Yucca	41



... Preliminary Remarks ...



IN ISSUING a new edition of our Ornamental Catalogue, we desire to express our appreciation of the generous patronage bestowed upon our establishment during the **forty-eight years** it has been in existence, and to assure all customers, both old and new, that the same honorable methods heretofore employed will be strictly adhered to in the future.

For the benefit of those who are not acquainted with our nurseries we propose to give a brief sketch of our business since its commencement. In 1853 the senior member of the firm started with one small greenhouse and an acre or two of seedlings and cuttings. Our business has grown gradually, year by year, until now we have over 25,000 square feet of glass, and our nurseries cover over 600 acres, our sales extending to every state and territory, besides exporting to Europe. We have furnished trees and plants to the Government National Cemeteries at Fort Scott, Kan.; Jefferson Barracks, Mo.; Chattanooga, Tenn.; Marietta, Ga.; Andersonville, Ga.; Salisbury, New Berne and Wilmington, N. C.; Antietam, Md., and Fredericksburg, Va., and have supplied most of the stock for the Gettysburg National Cemetery for several years. We have also sold largely to the U. S. Government at Washington, D. C., for planting in the parks and streets of that city.

Years of experience have taught us the unreliability of most of the novelties annually introduced as improvements on the old thoroughly tested favorites. Although these are usually procured and tested in our collection, we aim to propagate and offer only those of acknowledged superiority. Of the well-tested popular species and varieties, we aim to offer as large and varied a collection as can be found in any establishment in the country, and no pains are spared to have each tree and plant a perfect specimen and true to name.

Accurate grading of all stock has always received strict attention, so that our customers may rely upon obtaining the exact size they have a right to expect, and which invariably produces a superior effect in groups and masses.

Exceptional care is taken in digging trees and plants to prevent mutilation of the roots, which are, in fact, the vital organs of the vegetable world. With the best of care, however, these will be more or less injured, owing to the peculiar underground growth of many species.

Visitors are at all times welcome and will be cheerfully shown over our establishment, whether purchasers or not. As we feel a pardonable pride in our collections of rare trees, new hybrid cannas, hybrid roses, etc., all interested in their culture are invited to inspect the result of our work.

Our Nurseries are annually inspected by a special agent of the Department of Agriculture, who has granted us a certificate that he believes our stock to be free from the presence of infectious diseases and injurious insects which might be transferred from the nursery to the orchard or garden. As an additional precaution, we have erected a Fumigating House in which all kinds of trees are treated.

OUR CENTENNIAL MEDALS

We feel a pardonable pride in the Centennial Medals and Diploma awarded us by the United States Commission, for our display of Evergreens and Ivies; and while we feel confident we could have succeeded equally as well with any other class of plants in our establishment, we selected the above as the most suitable, on account of their adaptability for making a fine continuous exhibit from the opening to the closing day of the great Exhibition. We have been amply compensated by the many complimentary notices received from all parts of the country, that out of the millions of people who visited the Exhibition, so large a number noticed our display among the very many attractive features on the Horticultural Grounds.

ADVICE AND TERMS

Our Nurseries are in the immediate vicinity of West Chester, which is situated 27 miles west of Philadelphia, and with which we have nearly hourly communication by two railroads—one a direct road, the other a branch of the Pennsylvania, and from which we have a siding to our packing-house. By the latter route we are enabled to ship to all parts of the country, without transfer in Philadelphia, and at very low rates to distant points.

Our Office is situated directly adjoining Maple Avenue Station, and is ten minutes' walk from the main station, in West Chester. A trolley-car (fare, 25 cents) leaves Sixty-Third and Market streets, Philadelphia, every 15 minutes during the summer season, and every 30 minutes during the winter, for West Chester.

The packing season generally begins from the first to the middle of March in the spring, and about the first of October in the autumn. The season is not regulated, however, by any definite date, nor by the state of vegetation at the locality of the planter, but by the condition of the trees when received. Parties south of us may receive our trees some weeks after their season has opened, yet when planted they will give entire satisfaction.

Packing. All orders for forwarding by freight or express except in car-load lots are carefully packed in bales or boxes, for which a charge is made sufficient to remunerate for the cost of material and time.

Shipping. Our shipping facilities to the west by fast freight lines, and to New England and the south by various steamship lines, are unexcelled in rapidity of transit and low rates of freight charges.

Purchasers are requested to name the mode of conveyance by which they desire their shipments; otherwise we will despatch to the best of our judgment. After delivering to the forwarders, all articles are entirely at the risk of the purchaser; and should any loss or delay occur, the forwarders alone must be held responsible.

All packages delivered free of cartage at the freight and express offices in West Chester.

Parties desiring stock shipped per express C. O. D. must accompany their order with cash to one-half the amount; otherwise no attention will be paid to the same.

Claims. All claims for errors and deficiencies must be made within ten days after the receipt of the stock. We desire to be notified of mistakes as early as possible, so that we may rectify the same without delay.

Terms, Cash.

The following catalogues will be mailed on application, viz.: No. 1, Illustrated and Descriptive Catalogue of Fruits, three 2-cent stamps; No. 2, Illustrated and Descriptive Catalogue of Ornamental Trees, etc., 10 cents.

WEST CHESTER, PA., 1901

Hoopes, Brother & Thomas



... Hints on Transplanting ...

THE SOIL

The soil intended for a lawn should be plowed the previous season, and before planting should be stirred as deeply as possible, having given it a good coat of well-decayed manure or well-pulverized compost.

Should the soil be retentive of moisture, underdraining must be attended to, as it is impossible to grow trees with stagnant water about the roots.

PLANTING

Downing very justly said: "Many persons plant a tree as they would a post," and one-half of the failures are in consequence of negligence in this respect. The holes should be dug broader than the roots extend, but not much deeper.

With an attendant to hold the tree, begin filling in the best and finest pulverized soil around the roots, taking care that every rootlet be placed in its proper position, and in contact with the soil; by all means guard against the roots being matted together. When the hole is partly filled, a bucket of water may be poured in to settle the soil and fill the interstices among the fibers. The hole may now be filled and trodden firmly; indeed, this firming process is of the greatest importance. Never plant a tree deeper than it stood in the nursery, excepting dwarf pear trees; the junction of the graft and root must, in them, be directly under the ground.

We have seen a very beneficial effect produced on newly-planted trees, particularly during a drought, by dipping the roots before planting in a thin puddle of mud; this, adhering to the small fibers, tends to keep them moist for a long time.

After planting, the soil around the tree should be mulched with manure, or coarse litter of any kind, to prevent the action of the frost during the winter, and the soil from becoming dry during the summer.

Also, be careful to stake the tree firmly, protecting the bark by a piece of matting, in case strings are used in tying.

PRUNING

We have frequently advised purchasers how to prune their trees before planting, but the great majority appear to think it spoils the looks of the tree, and, consequently, they are never able to form a finely shaped top.

Before the trees are planted, cut all bruised and broken roots off carefully and smoothly, and trim from the branches at least three-fourths of the previous year's growth. The lower branches should be left somewhat longer than those above, and in all cases cut just beyond a bud. Should the tree incline to spread, cut to an inside bud; but if, on the contrary, it is an upright grower, select an outside one. We have found this to be of great importance. A strong, straight, leading shoot is indispensable to a handsomely-formed tree, and in pruning should be cut well back.

In pruning, as the tree increases in age, a judicious thinning of the branches must be attended to, always remembering that none should be displaced that will in any way mar its beauty. The best season for this operation is in the autumn, after the fall of the leaf, or early in the spring, but never during freezing weather. Some also adhere to summer pinching. **Never prune with a dull knife.**

If planted in sod, be careful to keep the ground stirred for at least 2 or 3 feet in all directions from the tree, and top-dress with manure or rich compost annually.

CASUALTIES

Roots that are frozen when exposed rarely recover; care must, therefore, invariably be taken never to unpack during such weather. Should trees arrive during a freezing spell, they must be placed under cover until after a thaw. If, from any cause, the bark appears dry, or shriveled, an excellent plan of resuscitation is to bury the whole tree in the ground, after giving a liberal soaking with water.

Trees that have come to hand during the autumn, and are intended for spring planting, should be laid in trenches, in a slanting position, with the tops inclined toward the south, thereby preventing the otherwise injurious effects of the sun. A slight covering of branches or coarse litter on the tops would also be beneficial.



EVERGREENS. Coniferæ

THE cultivation of Conifers has been a leading specialty in this establishment since its origin. With a view of testing the adaptability of the various species and varieties to our climate, a "PINETUM," four acres in extent, was planted with specimens of each kind that could be procured. A number of the tender and half-hardy kinds have succumbed to the severity of our winters, but the health and beauty of the many grand specimens remaining attest the congenial character of our soil and climate to their needs. With the knowledge thus gained by practical experience we have eliminated from commercial propagation many kinds of doubtful usefulness in our climate, and added others which have proven of great value.

THE FOLLOWING LIST, therefore, contains only such as we believe we may recommend to planters without reserve, our object being not to swell the list of names, but rather to make a reliable suggestive catalogue that will benefit our patrons.

ABIES. Fir

A genus composed mostly of large trees of a formal, conical outline and rich in color. The leaves are, for the most part, in two ranks, flattened, dark green, glossy and whitened beneath, the cones always standing erect with the scales deciduous at maturity. They delight in deep, rich soil, and in such will make an astonishingly rapid growth.

A. balsamea. *Balsam Fir, Balm of Gilead.* A well-known native species, beautiful when young but short-lived, and eventually presenting an open, straggling form. It is deep green in color, rapid in growth and unquestionably hardy. It forms a tree about 40 or 50 feet high, and will flourish in damp localities where most Conifers prove unsuccessful.

var. Hudsonica. *Hudson's Bay Dwarf Fir.* A dwarf form of the preceding, of the same deep green tint, and very compact in growth. In fact, it is merely a round mass of twigs and small dark foliage with silvery lines. Like the species, it is thoroughly hardy and reliable.

A. Cephalonica. *Cephalonian Fir.* An exceedingly beautiful tree from the mountains of Cephalonia, where it attains the height of 60 feet. It has proved quite hardy with us. The leaves are dark green and shining above, with a silvery glaucous tint beneath. The form is strictly conical and the tree a rapid grower. A group of these striking Conifers on the lawn produces a charming effect.

ABIES concolor. *White Silver Fir.* One of the newer Evergreens that has proven entirely hardy and exceedingly beautiful. It is a native of the western states, from Arizona and Utah to the California Sierras, and, unlike many of the Pacific slope Conifers, is quite reliable in the eastern states. It eventually forms a very large tree, with leaves long, pale glaucous green, and very attractive. Closely allied to *A. grandis*, but with rough gray bark.

A. Nordmanniana. *Nordmann's Fir.* One of the most popular and available Evergreen trees known to planters. Unquestionably hardy, of rapid growth, perfect in outline, with foliage of rich, deep glossy green, it thus combines all the excellences needful in a tree of this class. It is a native of the Crimea, but succeeds in all localities and situations.

A. Numidica. *Algerian Silver Fir.* Is a medium-sized tree from the mountains of Algiers and has proven hardy and valuable in this country. Its outline is generally a compact, conical pyramid, with beautiful bright green leaves, slightly glaucous below. A comparatively new and attractive Conifer.

A. pectinata. *European, or Common Silver Fir.* A well known species that was introduced into our collection many years ago. At maturity it is a tree of the largest size, of rapid growth, with deep shining green foliage, and is in some sections quite popular. It should be planted in a protected situation, as the severity of our northern winters occasionally injures the foliage and leading shoot.

ABIES pectinata, var. compacta. *Dwarf Silver Fir.*

A beautiful little Evergreen forming a compact mass of twigs, of a rounded outline, deep glossy green in color, and quite hardy. It is rare in collections and of very slow growth.

var. pyramidalis. *Pyramidal Silver Fir.* An extremely attractive and very rare Conifer. The form is strictly upright, remarkably dense, and usually branched thickly from the ground up, ending in a straight leading shoot; foliage dark shining green.

A. Pichta. *Siberian Fir.* A rather small tree, attaining a height of from 25 to 50 feet, with dark green leaves paler on the underside. It comes from the mountains of Siberia and Altai, where it forms whole forests of the richest verdure.

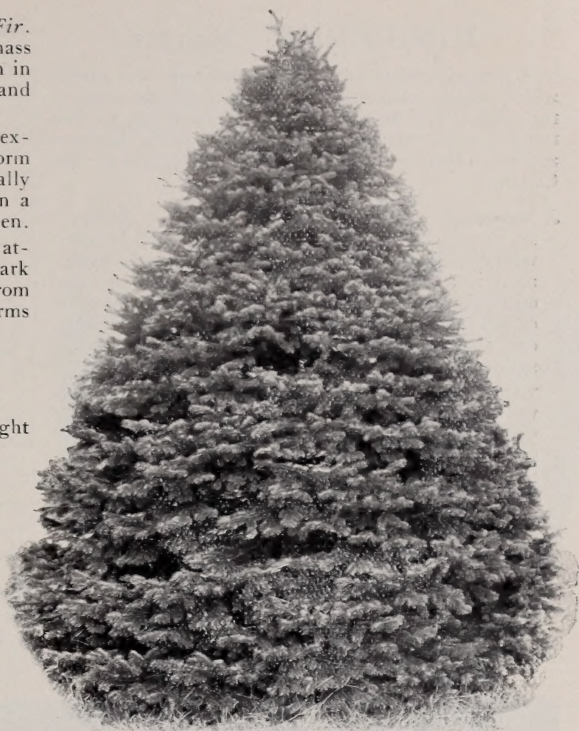
BIOTA. Eastern Arbor-Vitæ

A genus of Arbor-Vitæ of quick growth and light pleasing green foliage, although not so reliable in the northern states as our native or western species. The forms with a golden tint are especially desirable for the southern states.

B. orientalis aurea. *Golden Arbor-Vitæ.* An old, well known and popular variety of the Chinese Arbor-Vitæ, mainly planted at the south. The young growth is a rich golden yellow, which gradually changes to a pleasing bright green tint. It is rounded, compact and grows rapidly.

var. elegantissima. *Rollinson's Arbor-Vitæ.* Quite distinct from the above, with an upright fastigiate growth and fine golden tint. The latter is retained throughout the season, and is especially pleasing during the summer months. It appears quite hardy in most situations.

var. falcata nana. *Falcate Arbor-Vitæ.* The name is in allusion to the large spines on the cones, recurved in the form of a sickle. It comes to us from Yokohama, Japan, and is of a dense conical

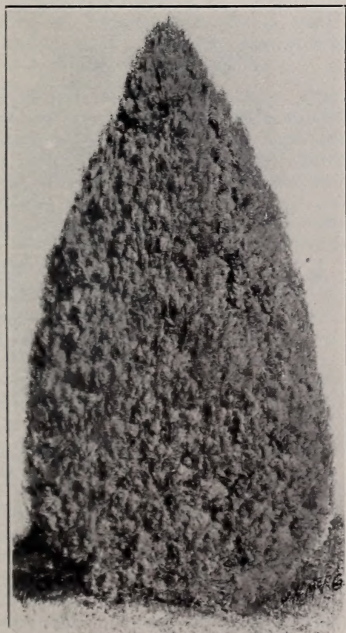


Abies Nordmanniana. (See preceding page.)

BIOTA, continued

form, with bright yellowish green foliage which is not so liable to change during winter to a dull color as the foliage of most of the other varieties.

var. semperæurescens. This pretty form, as its name implies, retains its bright golden tint all the season, and is certainly a very showy object on the lawn. It is dwarf and globular in shape, not unlike the common Golden Arbor-Vitæ, but quite distinct from it. Introduced from France.



Biota orientalis aurea.

CEDRUS. True Cedar

It is to be regretted that a genus of trees having so many characteristic features peculiar to themselves should prove deficient in one essential point—that of entire reliability.

The remarkable beauty of the young trees and the extreme picturesqueness of adult specimens, render them greatly sought by planters, but only so far north as the southern district of the Middle States can their culture be attempted with any chance of success.

C. Deodara. *Deodar Cedar.* From the Himalayas, attaining a great height and forming vast forests on the mountains. When young it is the perfection of a graceful tree, with a decided bluish glaucous tint pervading every portion of the foliage. It cannot be depended upon north of Philadelphia, and requires a sheltered situation even in that latitude.

C. Libani. *Cedar of Lebanon.* This magnificent Conifer is reasonably hardy in the Middle States, and is very partial to well-drained, light, fertile soils. Although making a regular conical shaped tree when young, it eventually assumes a perfect tabular Conifer with age, the branches being strictly horizontal. It is decidedly attractive at any age.

JUNIPERUS. Juniper

A genus of small to medium-sized trees and shrubs widely disseminated over the world, from the arctic to the tropical regions. The name Cedar being applied to some of the species is a misnomer, as the Junipers are very distinct from the last-named genus of true Cedars.

J. communis alpina. *Canadian Trailing Juniper.*

A dwarf creeping form of the Common Juniper, with distinct bright, silvery foliage. Entirely hardy, as it is a native of our most northern states, and especially suited to rocky hillsides and the borders of groups. Being somewhat impatient of removal, due care must be exercised in planting both the species and the following variety.

var. alpina aurea. *Golden Trailing Juniper.* A well-marked form of the preceding, with bright golden yellow foliage and a prostrate growth. It is strictly hardy, and one of the choicest dwarf Conifers in the entire list. For grouping with other low-growing Evergreens the contrast in tint and habit is exceedingly pleasing.

var. Cracovia. *Polish Juniper.* A native of the vicinity of Cracow, quite hardy and of attractive habit. It is erect in growth and not unlike the Irish Juniper in general character, although somewhat resembling the Swedish variety in the peculiar yellowish tint of the foliage.

JUNIPERUS communis, var. Hibernica. *Irish Juniper.*

Now becoming one of the best known and most popular forms of our common Juniper. It is remarkably fastigate in growth, with all the branches closely appressed, and the foliage a silvery bright green. It is reasonably hardy and reliable in most localities, except at the extreme North. A valuable Evergreen for the colonial style of gardening. Growth rapid and uniform, requiring little or no trimming.

var. Suecica. *Swedish Juniper.* Another of the peculiar formal varieties so helpful in architectural planting. This variety, however, is less stiff and precise in growth than the preceding, being rather more straggling in habit, with a peculiar yellowish glaucous tint pervading every portion of the plant. It is entirely hardy, distinct and popular with planters.

var. Neaboriensis. *Northern Juniper.* A strong-growing variety, not very unlike the ordinary form of the common Juniper, but stouter in all its parts. It is very hardy, grows rapidly, of a pyramidal form, and produces a fine effect among a group of Conifers on the lawn.

J. Sabina. *Savin Juniper.* A well-known hardy species from the sub-alpine districts of southern Europe as well as the northern portions of the United States and Canada. It is of broadly spreading habit, very deep green, and useful for planting along the front of groups, etc. Especially desirable for rockwork and planting in light sandy soil where many Evergreens refuse to thrive.

J. squamata. *Scaly-Leaved Juniper.* One of the best of the trailing Junipers, if not the most valuable of all for ornamental gardening. It is strictly prostrate when young, but with age gradually assumes an upright form and eventually makes a compact, straggling bush. The foliage is glaucous and very attractive, and the hardy character of the plant entitles it to a place in every collection.

PICEA. Spruce

The true Spruces are natives of the colder sections of Europe and Asia, as well as of North America, and are, with few exceptional species, entirely reliable with us. They are among the most ornamental of our entire list of available trees, growing readily in any good soil and forming regular shaped pyramidal specimens even when old.

P. Alcoquiana. *Alcock's Spruce.* One of the newer Evergreens from Japan, where it grows to a large size, with light green leaves marked underneath with silvery lines. It has proven entirely hardy and very distinct in general character. Of rather slow growth when young, but rapidly increasing in size after being fully established.

P. Canadensis (Syn., *P. alba*). *White Spruce.* A medium-sized tree from the northern portions of the United States, Canada, etc., with a compact habit of growth, regular conical outline, and soft glaucous green color. This hardy Conifer is certainly one of the most desirable species for general planting in the Middle States, for although somewhat formal in character, the beautiful tint of its foliage, as well as its entire reliability, entitles it to precedence. Grand specimens of it are growing in our nursery.



Picea pungens. (See opposite page.)

PICEA Engelmanni. *Engelmann's Spruce.* Another of the newer Conifers from our Rocky Mountain range which succeeds admirably in the east. It is not only quite hardy, but appears free from the disease that affects most trees from the Pacific coast. It grows from 80 to 100 feet high, with horizontal branches and bluish green leaves, and is altogether one of the most beautiful and available in the entire list of ornamental Spruces.

P. excelsa. *Norway Spruce.* This highly popular Evergreen is so well known as to scarcely need a description. It is a general favorite with all planters at the north on account of its hardiness, rich green color, graceful habit and adaptation to all well-drained soils. It is a native of Europe, and forms a large-sized specimen, branched to the ground, with numerous drooping branchlets which add to its attractiveness. A rapid grower.

var. inverta. *Weeping Norway Spruce.* A remarkably drooping form of the foregoing species, with the branches hanging closely to the body of the tree. The leaves are slightly larger and of a brighter green than the type. It is quite as hardy as the above, and worthy a place in collections of such odd sports.

var. pumila glauca. *Silvery Dwarf Spruce.* An exceedingly attractive little form, with a decided glaucous tint to the foliage. Leaves almost erect on the branches. The entire plant presents the appearance of a globular mass of twigs and foliage. Hardy and valuable for grouping with other dwarf Conifers.

var. pygmaea (Syn., *nana*, *pumila*, *minima*, etc.). *Pygmy Dwarf Spruce.* This is the smallest form of the Spruces known to cultivators, attaining only a height of about 18 inches, although spreading horizontally for some distance. The branches are all very short, with small, stiff foliage. It is a curious and attractive sport, quite distinct from the preceding.

var. pyramidalis. *Pyramidal Spruce.* A very remarkable variety, strictly upright in its growth, and resembling the Lombardy Poplar in habit; in fact, the arrangement of its branches is exactly the reverse of those on the type. It is hardy, easily grown and increases rapidly in size.

P. obovata. *Obovate-Coned Spruce.* Closely resembles *P. orientalis* in general character, but is larger in all its parts and a more rapid grower. The leaves are also of a darker and more glossy hue. It is a native of Siberia, forming trees upwards of 100 feet high, at high elevations, on the mountains. An undeniably hardy species, and very attractive either singly or in groups.

P. orientalis. *Eastern Spruce.* One of the most beautiful and easily grown of all the rarer classes of Conifers. A native of Armenia, where it forms dense forests on the mountain sides. It is not so large as the Norway Spruce, but very dense in structure, with numerous short, sharp, deep green leaves. The outline is strictly pyramidal, with less of a drooping character than the Norway, although fully as hardy and attractive.

P. polita. *Polished Spruce.* A rare and pretty species from the mountains of Japan that has proven entirely reliable with us. It is an erect conical tree, with sharp-pointed, rigid leaves spirally arranged around the branchlets and of a pleasing tint of green, but of rather slow growth.

P. pungens. *Colorado Silver Spruce.* Perhaps the most attractive Conifer in our entire list of available species. It is entirely hardy, of comparatively rapid growth, has an elegant glaucous green tint, and a



Pinus cembra.

PICEA, continued

perfect outline, combining so many fine points that we have no hesitation in recommending it for even the smallest collections. Owing to the great diversity of color in this species, we have reproduced the brightest tints of blue by grafting from selected specimens, but such trees are necessarily of higher price than ordinary seedlings.

PINUS. Pine

In an economic point of view this genus is the most valuable in the Coniferæ, and perhaps it might be proper to add that for ornamental purposes it is second to none. The several species are distributed over the greater portion of the world, in all extremes of climate and soil. Fortunately we of the Middle States are enabled to succeed with a large number of beautiful kinds, of which the following are the most reliable for general culture.

P. Austriaca. *Austrian Pine.* A rapid-growing species from the mountains of the Austrian Empire. It has very stout branches, with long, rigid bluish green leaves, and presents a massive appearance in contrast with other Conifers. It is very hardy, not specially particular in regard to soils, and valuable for wind-breaks, etc.

P. cembra. *Swiss Stone Pine.* A handsome hardy species from central Europe and northern Asia, with a regular conical outline, deep green foliage, and compact growth. In cultivation with us, it is only a small or medium-sized tree, although in its native habitat it attains a height of 100 feet. Unlike many other Pines, it retains its branches to the ground and is always one of the choicest specimens for ornamental use.

PINUS excelsa. *Himalayan, or Bhotan Pine.* One of the most elegant Evergreens, but unfortunately it is liable to blight in some soils. The branches are disposed in regular whorls, with long, slender, drooping, glaucous-green leaves. It is a native of the Himalaya mountains, growing at high elevations, and is quite hardy here. Attains a height of from 50 to 100 feet.

P. montana (Syn., *P. mugho*, *P. Pumilio*, etc.). *Mountain Pine.* This dwarf species is of the very greatest importance to the landscape gardener, owing to its extreme hardiness, dark somber green color, low-spreading growth, adaptation to rough soils, etc. It is a native of the sub-alpine districts of central Europe, where it grows either as a straggling bush of 5 feet or a small dense tree of 15 feet.

P. strobus. *White Pine.* This is the most imposing of all the Pines native to the eastern states. It forms a large, straight tree, from 100 to 160 feet in height, with horizontal branches clothed with long, slender, slightly glaucous leaves. It is unquestionably hardy, and is found throughout the eastern states from Virginia to Canada.

P. sylvestris. *Scotch Pine.* A rapid-growing, very hardy Evergreen, especially adapted for wind-breaks and grouping. It is a native of central and northern Europe, forming large trees with pleasing glaucous green leaves. Although quite ornamental when young, this species is more picturesque than beautiful with age.

PSEUDO-TSUGA

A little group of Hemlocks, mainly from the Pacific coast, Rocky mountains, etc., which has been separated from the Tsuga or Hemlock proper on account of marked botanical distinctions. The following species is the only one reliable at the east.

P. taxifolia (Syn., *Abies Douglasii*, *Tsuga Douglasii*). *Douglas' Spruce.* This elegant tree ranges from the

PSEUDO-TSUGA, continued

Rocky mountain region of Colorado to Oregon, and is much more trustworthy than the Douglas Spruce from California. The rich dark green foliage is silvery glaucous beneath, and the perfectly conical form of the tree is relieved by its graceful drooping branches.

CHAMÆCYPARIS. Retinospora

This charming group of Conifers from Japan have been separated from the Cupressus, or true Cypress. Their introduction into our collections is comparatively recent, but they have been so satisfactory and are so exceedingly ornamental, that there are now few Evergreens more popular.

C. obtusa. *Obtuse-Leaved Retinospora.* The largest of the group, attaining a height of 60 to 100 feet in Japan. It is a rapid-growing, handsome tree, with small, scale-like, light green leaves and drooping branches. Its hardiness is unquestionable throughout the Middle States.

var. filicoides. *Fern-Like Retinospora.* A very attractive garden variety, attaining a height of 4 or 5 feet, and bearing a general resemblance to its parent, *C. obtusa*. Its name is derived from the peculiar and graceful arrangement of its branchlets. The leaves are deep green, with a slight glaucous tint on the under side.

C. pisifera. *Pea-Fruited Retinospora.* A smaller tree than the last, slender in growth, with elegant feathery foliage. It is a hardy, graceful and rapid-growing Evergreen, with fulvous-green foliage marked with glaucous lines below. This is the common Cypress of Japan.

var. argentea. *Silver-Spotted Retinospora.* A very distinct and pretty variety of the above, having the foliage liberally sprinkled with pure white dots. It is fully as hardy as the species, and makes an excellent specimen for mixing in groups.

var. aurea. *Golden-Variiegated Retinospora.* Also very distinct and pretty. It is quite as hardy and conspicuous as the preceding, and should be more liberally used in collections. From the neighborhood of Yeddo in Japan. All the young foliage is profusely marked with rich golden yellow.

var. filifera. *Thread-Like Retinospora.* An elegant drooping form, especially noticeable in a group of Conifers. The thread-like pensile branchlets are very graceful, and are furnished with small, sharp-pointed, glossy green leaves. It is entirely hardy and forms a large shrub, and is exceptionally valuable for massing on the front line of evergreen belts. Unusually distinct.



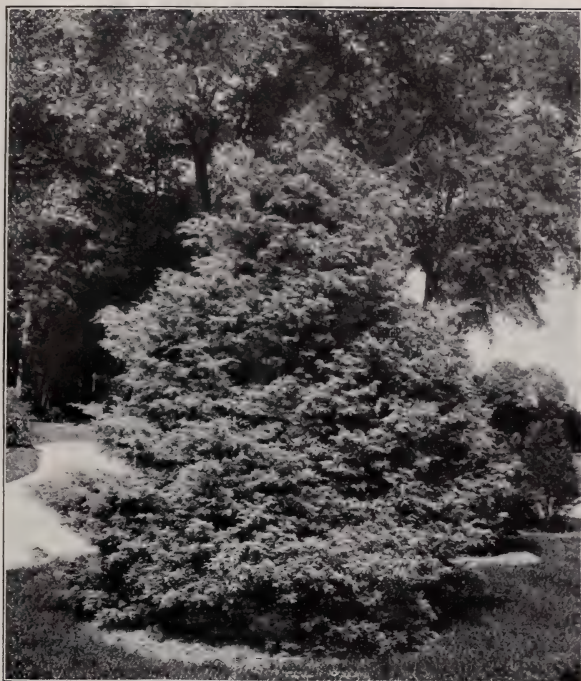
Pinus montana.

CHAMAECYPARIS pisifera, var. plumosa.

Plume-Like Retinospora. A small tree, 15 or 20 feet high, but only a garden form of some species in Japan. It forms a very dense-growing large bush of conical habit, bears the shears well, and is certainly a great addition to our cultivated dwarf Conifers. Branchlets numerous and feathery, with deep green leaves.

var. plumosa aurea. *Golden Plume-Like Retinospora.* Without doubt one of the most striking and desirable little Evergreens for our climate. Habit of growth similar to preceding, but with its terminal shoots and young foliage of a bright golden yellow tint. Very distinct, hardy, and useful for grouping. Should be frequently pruned.

var. squarrosa Veitchi. *Veitch's Retinospora.* There are two very distinct forms grown under this name, of which Veitch's is the better in every way. A beautiful heath-like plant, with sharp-pointed, silvery foliage, and of a compact pyramidal growth, several feet in height. With us it is entirely hardy, and very different from all of the other Japanese Conifers. Frequent shearing improves the form and never injures the growth of the plant.



Retinospora plumosa aurea.

TAXUS. Yew

Unfortunately this attractive genus of Evergreens is not so reliable in our climate as we might wish, but when duly sheltered and in proper soil, the different species frequently attain good size and become among the most delightful of large shrubs. For grouping as well as formal gardening, they are especially adapted, and as they bear free pruning their value is greatly enhanced.

T. adpressa. *Flat-Headed Yew.* Perhaps the hardest and most attractive of the genus, forming large bushes 8 or 10 feet high. It is said to be a native of Japan, although its origin is involved in mystery. However, *T. adpressa* is certainly very distinct from any other Yew, with ovate leaves of very dark green. The form is tabular and the branches spreading.

T. baccata. *Common, or English Yew.* An old and popular Evergreen that is not altogether reliable in exposed situations. Of very slow growth, but in time attains the height of a small tree. Very bushy, with rich dark glossy green foliage and spreading habit. It is of undoubted value for cemetery planting and fine for "topiary work," as well as for lawn planting on the outer edge of groups of large Conifers.

var. aurea. *Golden Yew.* A remarkably conspicuous and elegant form, of low, bushy habit and reasonably hardy. The margins and tips of the leaves are a rich golden yellow tint during the growing season. Fine for grouping with other dwarfish Evergreens.

var. erecta (stricta). *Erect Yew.* A very popular variety, entirely hardy, with slender branches growing erect, and densely clothed with small deep green foliage. Said to be raised from seed of the Irish Yew, but more reliable than that form.

var. fastigiata. *Irish Yew.* This remarkably fastigiate form of the English Yew is rich dark glossy green, reasonably hardy in favorable locations, and always a conspicuous and attractive variety. It is well adapted for cemetery planting, occupying but little room, and requiring no clipping to preserve its shape.

TAXUS baccata, var. nana. *Dwarf Yew.* This peculiar little sport from the type makes a low bush, spreading somewhat and retaining its special character without clipping. The foliage is small, and of a deeper tint than the species. Altogether it makes a desirable little Evergreen, especially for gardens of contracted area.

T. Canadensis. *American Yew.* It is questionable whether this very distinct shrub is a species or merely a form of the common Yew. Its habit is straggling, or, in some instances prostrate, with deep green foliage. Clipping is a necessity to preserve a globular shape.

var. aurea. *Golden American Yew.* One of the most charming of the family, with distinct deep yellow variegation on the margins of the leaves and young twigs. It is as hardy as the type and not difficult to grow in any situation, although it prefers a well-drained soil and sheltered locality. Especially beautiful in spring.

THUJA. Western Arbor-Vitæ

The Arbor-Vitæ of North America are very distinct from those of the Old World in many essential points. Our plants are more hardy, grow larger, and are adapted to a greater variety of purposes than the Biota varieties, of which a list is also given on page 5. For hedging they are cheap, grow quickly, and bear the shears well. The species as well as the numerous garden forms are specially adapted for ornamental planting.

T. occidentalis. *American Arbor-Vitæ.* This well-known tree is a native of the northern portion of our continent, is entirely hardy in all situations, and not particular in regard to soils. It forms a dense tree, from 25 to 50 feet high, growing in an erect conical form, and is of rapid growth. No Evergreen bears the shears with less injury than this.



Retinospora squarrosa Veitchii. (See Page 9.)

THUJA occidentalis, var. Brinckerhoffii. *Brinckerhoff's Arbor-Vitæ.* A distinct and exceedingly attractive variety, resembling the Siberian *Arbor-Vitæ* in outline and density, but of a charming golden yellow tint. During the spring months the young growth is specially noticeable and contrasts beautifully with the darker hue of other forms. It is quite hardy and reliable in the northern states.

var. compacta. *Parson's Arbor-Vitæ.* A dwarf, compact form of rather slender growth and pale yellowish green color. In general appearance it differs from all other dwarf forms, and is a popular, reliable variety.

var. conica densa. *Dwarf Dense Arbor-Vitæ.* One of the best of the smaller bush-like Evergreens, with a conical outline. Of very compact growth, and dark green color. One of the most popular of the dwarf *Arbor-Vitæ*s.

var. ericoides. *Heath-Like Arbor-Vitæ.* Although merely a dwarf form of the American *Arbor-Vitæ*, with the first leaves of the species perpetuated—in other words, an arrest of vegetation—it is still a curious and pretty little plant. It is of conical form, very dense, with linear, sharp-pointed leaves, changing to a dull, brownish red in winter.

var. George Peabody. This is, without exception, the most conspicuous and elegant of variegated or golden tinted Conifers. It seems to combine all the elements of success, being quite hardy and a rapid grower, having foliage plentifully marked with deep golden yellow. As in all this class of trees, the early summer growth is much more beautiful.

var. globosa. *Globe-Headed Arbor-Vitæ.* Another of the popular dwarf forms, globular in outline and dense in construction. It is a very pretty shade of green, needs no clipping, and is always reliable.

THUJA occidentalis, var. Hackeri. *Hacker's Dwarf Arbor-Vitæ.* This seedling from *var. pyramidalis* is of an upright conical form, dark green in color, dwarf, and pleasing in appearance. One of the best for grouping and formal gardening.

var. pumila. *Booth's Dwarf Arbor-Vitæ.* An excellent dwarf variety, raised in a German collection. It makes a neat little bush, very dense and perfect in form, with innumerable small branchlets closely packed together. The outline is perfectly rounded and the color a fine shade of green.

var. pyramidalis. *Pyramidal Arbor-Vitæ.* A remarkably columnar form, with all the branches rigidly erect; dark green, compact, very desirable. As conspicuous as the Irish Yew and much hardier than that popular English Evergreen.

var. pyramidalis Douglassi. *Douglas' Pyramidal Arbor-Vitæ.* A comparatively new and very distinct variety from Waukegan, Illinois. Like the above, it is exceedingly erect in habit, very compact, and of a pleasing deep green color; perhaps more distinct than the old form and very popular.

var. Siberica. *Siberian Arbor-Vitæ.* This well-known popular variety is one of the most useful Evergreens for the northern states, combining as it does excessive hardness, regular conical outline, and a peculiar dark green and remarkably dense foliage. Hedges or screens formed of it are especially beautiful, and more attractive than those made from the species.

var. Vervaeana. *Vervae's Variegated Arbor-Vitæ.* A remarkably attractive kind, the foliage being beautifully marked with rich golden yellow spots. During early summer the young growth is tinted with the same bright hue, which changes in winter to a brownish orange. It is entirely hardy, a rapid grower, and very desirable.

TSUGA. Hemlock

A small genus of Evergreens frequently classed with the Spruces, although botanically distinct. The trees belonging to this group are all of remarkably graceful habit, and their foliage presents a more light and feathery appearance than that of either the Spruces or the Firs, to both of which they are closely allied.

T. Canadensis. *Hemlock Spruce.* A well-known native of the northern states, and among our most valued hardy Conifers. It is a tree of the largest size, of a regular conical form, with long, slender branches, drooping gracefully to the ground. The dark green foliage is remarkably pleasing, and the growth rapid in congenial soils.

var. nana. *Dwarf Hemlock.* A curious dwarf form which is very much smaller in all its parts than the common Hemlock; in fact, it is merely a little round-headed compact bush, very twiggy and deep green in color. Valuable for the shrubby.

T. Caroliniana. *Carolina Hemlock.* Found along the Alleghany mountain chain, mainly in North Carolina, and is comparatively a recent introduction into our collections of Conifers. It does not form so stately a tree as the preceding, but is even more graceful and elegant than that species, with lighter green foliage and perhaps a denser habit of growth.

DECIDUOUS TREES

IT has been our constant endeavor, from the commencement of this business, to test all species and marked varieties of Deciduous trees that would endure our climate, and in consequence we have discarded a large number that have failed to meet the requirements of planters. Of the many standard reliable kinds, we annually grow immense blocks for parks, cemeteries, etc., so that we are at all times prepared to supply fine specimens at reasonable rates. We endeavor to grade, dig and handle these with the greatest possible care, and with the experience of almost half a century to aid us we feel our system is nearly perfect. Of many species we can furnish extra-sized specimens that have been transplanted and pruned to avoid danger in removing.

ACER. Maple

A genus composed mostly of large trees, embracing some of the most valuable ornamental species in use. For street planting they are unsurpassed, combining, as they do, attractive appearance with hardiness, rapidity of growth, comparative freedom from disease and injurious insects.

A. campestre. *English Maple.* Native of Europe, forming a medium-sized tree, with peculiar corky bark and spreading branches. Leaves obtusely 5-lobed, rather small and striking. It is a singularly pretty tree on the lawn, entirely hardy, and easily grown on dry soil.

A. colchicum rubrum. *Red Colchicum Maple.* An attractive species from Japan, hardy, and of medium size. The leaves are 5-lobed, smooth on both sides, dark green above and paler below. The greatest beauty of this tree lies in the bright red tint of its young leaves and twigs.

A. Negundo (Syn., *Negundo aceroides*). *Box Elder, Ash-Leaved Maple.* A large native tree of very rapid growth, hence of great value where an early shade is desired. It is suited to all soils, although found in a wild state, along streams, etc. Leaves pinnately arranged, smooth, pale green.

A. Pennsylvanicum. *Striped Maple.* A small tree, native of the northern states. Its marked characteristic is the greenish bark, striped with dark lines. The leaves are large and lobed at the apex. Flowers conspicuous, of a pretty greenish yellow color. Growth rapid.

A. platanoides. *Norway Maple.* The most popular species of the Maple group, either for the lawn or street planting. It forms a perfect, rounded head, with large, deep green foliage, is quite hardy, very compact in form, grows rapidly, and is exceptionally free from injurious insects.

var. dissectum. *Cut-Leaved Norway Maple.* An attractive and very distinct form, with bright green leaves cut into deep lobes. The tree forms a round, shapely head, grows quickly and makes an exceedingly beautiful specimen.

var. laciniata. *Eagle's Claw, or Hawk's Foot Maple.* An extremely unique and distinct form, with the lobes narrow, deeply cut, and slightly curved, resembling the claw of a bird. It is more curious than handsome, although attractive.

var. purpurea. *Geneva Purple-Leaved Maple.* One of the newer introductions, with fine large foliage, light purple in spring but intensifying in color as the season advances. It is a good grower and very distinct.

var. Reitenbachii. *Reitenbach's Purple-Leaved Maple.* The large, glossy foliage of this variety opens green but gradually changes to a rich purple in summer. It is a more erect grower than the others, and a valuable ornamental tree.



Acer saccharum. (See page 12.)

A. platanoides, var. Schwedleri. *Schwedler's Purple-Leaved Maple.* A distinct and beautiful variety, with large, deep purple leaves in spring and early summer. Purplish green late in the season. A hardy and vigorous tree for the lawn.

A. polymorphum. *Japan Maple.* See Deciduous Shrubs for descriptions.

A. Pseudo-platanus. *Sycamore Maple.* From Europe, forming a large tree of rapid growth, with spreading branches. It is inferior to the Norway Maple, mainly on account of its wonderful propensity to produce seed; hence a more open head and ragged appearance.

var. purpureum. *Purple-Leaved Sycamore Maple.* Distinct from the species on account of the pretty purplish tint on the under side of the foliage. It is a vigorous grower, hardy, and worthy of dissemination.

A. rubrum. *Red, or Swamp Maple.* One of our most valued native trees, although of rather slower growth than some. Leaves of medium size, changing in autumn to the most gorgeous tints of scarlet, crimson and orange.



Aesculus Hippocastanum.

ACER saccharinum (Syn., *A. dasycarpum*). *Silver Maple*. This common native species is a tree of the largest size and most rapid growth. It was for many years the most popular street tree grown, but its large size is a detriment for this purpose. Leaves silvery white beneath.

var. Wierii. *Wier's Cut-Leaved Maple*. One of the most available of the cut-leaved class of ornamental trees. The tree is a strong grower with pendulous branches, and the foliage is fern-like in appearance. Forms a beautiful specimen on the lawn, hardy, and very distinct.

A. saccharum. *Sugar, or Rock Maple*. A charming tree for avenues or lawn planting, with a large, perfectly rounded head, dense in construction, and with bright green leaves. It forms a specimen of large size, is moderately rapid in growth, and always in demand.

ÆSCULUS. Horse-Chestnut

A genus distinguished from *Pavia* by roughness of fruit and somewhat rougher leaves. Quite popular for street trees and lawn planting, although subject to leaf-blight during summer. Entirely hardy and adapted to all soils.

Æ. Hippocastanum. *Common Horse-Chestnut*. A large tree, native of northern India. Has a symmetrical head, large, digitate leaves, and large, conspicuous panicles of white-spotted flowers. Growth rather slow.

Æ. Pavia. *Red Buckeye*. Seldom attains the height of even a small tree. Native of our southern states, and valued for the attractive reddish purple flowers arranged loosely on the stem. Requires a rich soil.

ALNUS. Alder

Although mostly shrubs, the following species cannot be classed under that heading, because of large size and spreading branches. It prefers a low, moist situation to properly develop its growth.

A. glutinosa. *European Alder*. In favorable situations, this tree grows very rapidly to 40 or 50 feet in height. It has dark green, rounded leaves, and is valuable for using in low, wet places, in common with other Alders.

AMYGDALUS. Almond

Deciduous trees of small size, mostly hardy, natives of Asia, Africa, etc. They have been long in cultivation and are very closely allied. The so-called Dwarf Almonds really belong to *Prunus* or the Plum family, and will be found among Deciduous Shrubs.

A. communis. *Common Almond*. Attains about the same height as the Peach, and is not unlike it in general appearance. We grow two marked varieties with edible kernels, the "Hard Shell" and "Soft Shell," the former being the hardier and the more reliable of the two.

A. persica. *Peach*. There are several very ornamental varieties of the Peach, producing charming double blossoms, similar to small roses, in spring. As they are distinct in color, a group composed of these alone forms an exceedingly attractive feature.

var. alba fl. pl. *Double White-Flowering Peach*.

var. Davidiana fl. pl. *David's Small Double White-Flowering or Willow-Leaved Peach*.

var. rosea fl. pl. *Double Rose-Flowering Peach*.

var. sanguinea fl. pl. *Double Red-Flowering Peach*.

var. versicolor fl. pl. *Double Striped-Flowering Peach*.

var. fol. atropurpurea. *Blood-Leaved Peach*. A variety with dark purplish red foliage.

var. "Golden Dwarf." Grows 2 or 3 feet high and produces delicious golden yellow fruit. It is very ornamental as well as useful.

var. "Italian Dwarf." An exceedingly unique and pretty little bush, bearing small white fruit of good quality. Height 1½ to 2 feet.

BETULA

Birch

A genus of hardy trees, some of which are natives of the United States. They are rapid in growth, graceful in form, and well adapted for landscape work, either in groups or avenues.

B. alba. *White Birch*. This is the common birch of Europe, with silvery white bark,



Amygdalus persica, var. Davidiana fl. pl.

BETULA, continued

small, smooth leaves, and a pleasing drooping habit. It is very effective on the margins of lakes, etc., and will thrive in almost any situation.

var. laciniata. *Cut-Leaved Weeping Birch.* One of the most popular ornamental trees in the entire list, owing to its charming drooping habit and elegant fern-like foliage. It succeeds best at the north, where it is less likely to lose its lower branches.

var. Youngi pendula. *Young's Weeping Birch.* A very graceful form, with long, slender branches reaching to the ground. It is entirely distinct and very striking in a collection.

B. lenta. *Sweet, or Cherry Birch.* Attains the height of about 50 feet, with numerous slender branches which are pleasantly aromatic. It is a graceful specimen in ornamental grounds, grows rapidly and is quite hardy.

CARPINUS. Hornbeam

Deciduous trees of medium size, rather slow in growth, with dark elm-like leaves, and very dense in construction. The trunk and branches are also not unlike the Elm family in general appearance. Hardy, and suited to most soils.

C. Betulus. *European Hornbeam.* The natural compactness and denseness of its structure admirably fit it for hedging purposes, but it, likewise, forms a striking ornamental specimen.

CASTANEA. Chestnut

This is a genus of decided merit, not only for its crops of edible nuts, but also for its value as a lawn tree. The trees are generally of large size, with ample foliage, rapid in growth, succeeding in light, dry soils.

C. vesca. *European Chestnut.* Originally from Asia Minor, although frequently known as Spanish Chestnut, French Chestnut, etc. It forms an imposing specimen, with a large rounded head and straight trunk, besides yielding usually a bounteous crop of nuts. Our trees were grown from selected seed and will produce fairly large nuts.

var. Americana. *American Chestnut.* Our own native tree, with smaller, but sweeter, nuts than the preceding. It is also of large size, but more picturesque in growth than the above. Of rapid growth when fully established, and excellent for grouping.

var. Japonica. *Japanese Chestnut.* The trees of this variety are smaller than the others and begin fruiting at a much earlier age. Exceedingly prolific. Nuts much larger than most varieties, and occasionally running 4, and even 5, in the burr.

There are a number of improved varieties now in cultivation, possibly crosses between the European and Japan Chestnuts, of which we can supply **Alpha, Early Reliance, Giant, Numbo, Paragon, Ridgely, Success and Superb.** For descriptions, refer to our Fruit Catalogue, No. 1.

CATALPA. Indian Bean, etc.

A genus composed of about 7 species, some of which are natives of this country. The large foliage and long panicles of beautiful white or mottled flowers, as well as their rapid growth, have caused them to be very popular with planters. Suited for low grounds.

CATALPA Bungei. *Dwarf Catalpa.* From eastern Asia, but quite hardy with us. It forms a round, dense head, and is especially attractive when grafted standard high on a straight stem. A distinct and excellent large shrub for massing.

C. Catalpa. (Syn., *C. bignonioides*). *Common Catalpa.* A native of the southern states, but naturalized at the North, where it has proved hardy and fine. It grows to a large size, with broadly ovate leaves and numerous erect panicles of very showy flowers.

var. purpurea. *Purple-Leaved Catalpa.* The young shoots and foliage early in the season show a decided purplish tint; otherwise as in the species.



Betula alba, var. laciniata.

C. hybrida. *Teas' Japan Catalpa.* Is a remarkably rapid grower and forms a compact, shapely head. Very desirable as an ornamental tree, as it blooms profusely and has very attractive flowers.

C. Kaempferi. *Kaempfer's Japan Catalpa.* A distinct species from Japan, of only medium height, but with numerous erect panicles of elegant yellowish flowers rather earlier than the others.

C. speciosa. *Larger Indian Bean.* A western species growing to a large size, and with faintly mottled flowers, in large showy clusters, followed by curious long beans that give the tree a most picturesque aspect in winter. The bark is rough and thick, thus differing from *C. Catalpa*.



Cornus florida.

CERCIS. Red-Bud

The only recommendable and thoroughly reliable species attaining the size of a tree is described below. It is beautiful when in flower, which is in advance of the leaves in early spring.

C. Canadensis. *American Judas Tree.* A small, native tree, hardy and well adapted for the outer edge of groups, etc. It blooms very profusely in clusters of a reddish purple color, during April.

CHIONANTHUS. Fringe Tree

A small genus, with one representative in this country, all small trees with very beautiful, fringe-like flowers, followed by a dark purplish fruit, shaped like an olive. Of great use for garden planting and entirely hardy.

C. Virginica. *American Fringe Tree.* A small tree, frequently a mere shrub, producing, in May and June, numerous panicles of snow-white drooping flowers. One of the choicest small trees belonging to our native flora.

CLADRASTIS. Yellow-Wood

A genus consisting of one native and one Chinese species, of rather small or medium size. It has pinnate leaves and blooms in long drooping panicles terminating the branches. Hardy, and very conspicuous when in full bloom; similar, but superior to the Yellow Locust.

C. lutea (Syn., *C. tinctoria*, *Virgilia lutea*). *American Yellow-Wood.* A small tree, with smooth bark, smooth leaflets, and beautiful white flowers. It is a native of Kentucky and Tennessee, but quite hardy and reliable in cultivation.

CORNUS. Dogwood

Although a large genus, the following is the only species that may be classed as a small tree. It seems too well known to need a description, but is indispensable in all ornamental grounds, either grown singly or for grouping.

CORNUS florida. *Flowering Dogwood.* Usually a small tree, with rough bark and spreading branches. Leaves ovate, dark green, changing in autumn to brilliant crimson. The bracts of the involucre, or floral covering, are pure snow-white and very abundant. The berry-like, bright scarlet fruit is also quite ornamental.

var. pendula. *Weeping Dogwood.* A decidedly pendulous form of the above, with all its good qualities and no defects. It is a remarkably conspicuous object on the lawn at all times, and should be extensively planted.

var. rubra. *Red-Flowering Dogwood.* This differs from the parent in having the conspicuous bracts of the involucre bright rosy red or pink in color. The autumnal tints are fully as brilliant as in the other forms. It is undeniably

one of the most deserving novelties introduced for many years, and appears to great advantage when planted in contrast with the white form.

CRATÆGUS. Thorn

A large family of mostly small trees and generally hardy at the north. The flowers are usually white or pink, in terminal corymbs, followed by drupe-like fruits that are quite ornamental when ripe.

C. Oxyacantha alba fl. pl. *Double White-Flowering Thorn.* A form of the Hawthorn, with clusters of pure white flowers resembling little roses, during May and June.

var. coccinea fl. pl. *Paul's Double Scarlet-Flowering Thorn.* A conspicuous and very beautiful variety, producing scarlet flowers in the same manner, and as double as the above. A tree in bloom is a notable sight.

var. rubra fl. pl. *Double Red-Flowering Thorn.* An excellent companion to the foregoing; inflorescence rose-colored or reddish, double and fine.

DIOSPYROS. Persimmon

Although there are quite a large number of Asiatic species belonging to this genus, there is but one that is entirely reliable at the north. The Persimmons are grown chiefly for their fruit, which is a large, pulpy berry, very astringent when unripe, but edible after being subjected to the action of frosts.

D. Virginiana. *American Persimmon, Date Plum.* Commonly a medium-sized tree, native of the United States, with dark, furrowed bark and deep green foliage. The fruit is roundish, reddish yellow and sweet.

D. Kaki. *Japan Persimmon.* Not hardy at the north, but reliable in the southern states, where it forms a small tree with a profusion of large orange-like fruit of excellent quality. The culture of the Japan Persimmon is commercially important in the southern states.

FAGUS. Beech

The Beeches, especially the different varieties of *F. sylvatica*, are of the greatest use in landscape gardening. They are all hardy and love a deep, rich soil to develop their greatest beauty. Mostly of large size, but not very rapid in growth.

F. Americana. *American Beech.* One of our finest native trees, with smooth bark, spreading branches and symmetrical head. It is more open in construction than the European species, but more picturesque and striking in cultivated grounds.

F. sylvatica. *European Beech.* This forms a grand specimen, of large size, has round, compact head and deep green foliage. The branches are almost universally upright in growth, while those of the American species are horizontal and drooping.

var. cristata. *Curled-Leaved Beech.* A unique and very distinct form, having the foliage curled and twisted into dense tufts at intervals along the branches. It is dwarfer in habit than the other varieties, and exceedingly curious.

var. heterophylla. *Fern-Leaved Beech.* A very handsome form, with charming fern-like foliage and perfectly rounded outline. It is reasonably rapid in growth when fully established, and makes an unusually attractive specimen.

var. laciniata. *Cut-Leaved Beech.* A singular, yet elegant form, with the foliage deeply incised or cut into shreds, not unlike a pretty green fringe. The form is perfect and compact, the tree a good grower.

var. pendula. *Weeping Beech.* One of the most effective and elegant drooping trees known. It forms a large specimen, with spreading pendulous branches and dark green, glossy leaves. Tree a rapid grower when established, although rather impatient of removal.

var. purpurea. *Purple-Leaved Beech.* An indispensable ornament for every lawn. The rich purple foliage is so decided and beautiful that no other tree is better adapted for notable and charming contrasts in grouping. Our trees are all grafted from the celebrated "Rivers" variety, which is eminently superior to all other forms.

var. purpurea pendula. *Weeping Purple-Leaved Beech.* A somewhat recent novelty, uniting the peculiar lovely purple tints of the preceding with the decidedly drooping habit of the ordinary green-leaved weeping form. We believe this will eventually become one of our most popular ornamental trees.

FRAXINUS. Ash

All deciduous trees of medium or large size, very stately and well adapted for large lawns. Owing to a tendency to sport into all manner of curious varieties, there are quite a large number propagated, but, after thoroughly testing most of these, we have discarded all, mainly on account of the dreaded "borer."

FRAXINUS excelsior. *European Ash.* A large tree that succeeds well with us provided the "borers" are removed annually; otherwise it will survive only a few years. It is a rapid grower, with smooth, shining leaves and regular shaped head.

F. Americana. *American White Ash.* One of our most majestic native trees; of large and rapid growth, with spreading branches. Very suitable for large lawns with abundance of space to develop its beauty. More reliable than *F. excelsior*.

GINGKO. Maidenhair Fern Tree

A monotypic genus from China and Japan, entirely hardy here, and a remarkably beautiful and unique tree. It belongs to the Coniferae, with deciduous, curious fan-shaped leaves, changing in autumn to a yellowish tint. The fruit is an edible, almond-like nut.

G. biloba (Syn., *Salisburia adiantifolia*). A medium-sized tree of upright growth, and in high esteem for lawn or avenue planting. It increases rapidly in size and is remarkably free from disease or insects. Prof. Sargent says, "The Ginkgo is perhaps the most beautiful, as it is certainly the most interesting, tree to be seen in Japan." The charming avenues in Washington, D. C., planted with this tree are proofs of its value for this purpose. A notable example is near the Department of Agriculture. See illustration on page 16.



Fagus sylvatica, var. pendula.



An avenue of Ginkgo Trees. (See page 15.)

GLEDITSCHIA. Three-Thorned Acacia

A small genus of large, rapid-growing, thorny trees, with dark green, glossy leaves. They are hardy, easily grown, and form excellent specimens for park planting. Perhaps the most suitable hedge-plant for the north, where the Osage orange will not survive.

G. triacanthos. *Honey Locust.* A native tree of largest size, very thorny, with smooth, deep green pinnate leaves. When full of its long twisted pods in autumn, the effect is peculiar and picturesque. It forms a stately object on large lawns.

GYMNOCLADUS. Kentucky Coffee

A monotypic genus of a single native species, which grows to a large size; very tall, with long naked branches almost destitute of branchlets, and bipinnate leaves. Flowers conspicuous, in terminal racemes followed by large, thick pods.

G. dioica (Syn., *G. Canadensis*). *Kentucky Coffee.* A lawn tree of no mean decorative effect, owing to the exceptional aspect of its growth. It increases rapidly in size, and, being entirely hardy, may be highly recommended.

HICORIA. Hickory

Formerly known under the generic name of *Carya*. Large native trees, with tough wood and pinnate leaves. Of rather slow growth and difficult to transplant, but unsurpassed for large lawns and parks as first-class trees.

H. ovata (Syn., *Carya alba*). *Shellbark.* Grown chiefly for its edible nuts, although tall and stately in appearance, with very rough bark; hence also valuable as an ornamental specimen. Shellbarks delight in a deep, rich soil, moderately moist, and in an open exposure. In autumn their foliage colors up to a very rich and conspicuous pure golden yellow.

H. Pecan (Syn., *Carya olivæformis*). *Pecan.* A large, slender-growing native tree found generally in the more southern states. It forms a stately ornamental tree of rapid growth, and is very valuable for its oblong, thin-shelled, smooth nuts, with delicious kernels.

JUGLANS Walnut

Closely related to the preceding genus and grown mostly for their edible nuts, although valuable also for lawn trees. The transplanting should be performed when the trees are small, because of their strong tap-roots.

J. cinerea. *Butternut.*

A rather small or medium-sized native tree, with light bark and spreading branches. The nuts are oblong, with deeply furrowed shells, the kernels oily and not so pleasant as the others. It is a rapid grower in good soil.

J. nigra. *Black Walnut.* Another of our valued native trees. Large, with spreading branches, and roundish, rough, dark nuts, of excellent flavor. Has rough, dark bark and pinnate leaves.

J. regia. *English Walnut.* Not entirely hardy in the Middle States, except in sheltered positions. It is a tree of the largest size, with smooth light gray bark, and thin-shelled nuts of excellent quality.

KÆLREUTERIA

A monotypic genus, introduced into our collections from China. It has proved entirely hardy and reliable. It is a small very free-flowering ornamental tree with spreading branches.

K. paniculata. *Panicle-Flowered Kæltreuteria.* Of small or medium size, with coarsely-toothed, ovate leaflets, turning golden yellow in autumn. Flowers in large, loose terminal panicles, showy, yellow, preceding large bladderly capsules.

LABURNUM. Laburnum

Quite a large genus, composed mostly of shrubs, although the following may be classed as a small tree. Flowers pea-shaped and usually yellow in color. The various species are very ornamental, although not all reliable with us at the north.

L. vulgare. (Syn., *Cytisus Laburnum*.) *Golden Chain.* Beautiful pale green bark. The long drooping racemes of golden yellow flowers are specially attractive. It is mostly hardy here.

LARIX. Larch

Cone-bearing trees, with deciduous leaves, pyramidal in growth and with long drooping branches. Leaves needle-shaped, changing in autumn to bright yellow. Should be transplanted in autumn or very early in spring.

L. Europaea. *European Larch.* A first-class tree for the lawn, of rapid growth and large size. Decidedly the most valuable of the genus, and perhaps the most beautiful, the pendulous branchlets adding a charm to its perfect conical outline.

var. pendula. *Weeping Larch.* This is a very distinct and striking form, with the branches contorted and drooping. When grafted standard high it makes a pretty weeping tree, with all the good qualities of the English Larch.

LIQUIDAMBAR. Sweet Gum

Large trees, with curious, star-shaped handsome leaves and rough, corky bark, both on the main stem and branches. Native of North America and very common at the south in low, moist ground.

L. styraciflua. *Sweet Gum.* One of our most beautiful and deserving native trees. It is a rapid grower when once established and has elegant, glossy, deeply-lobed foliage, forming a rounded, spreading head. The autumnal tints are gorgeous.

LIRIODENDRON. Tulip Tree

A small genus, possibly consisting of but one species, native of North America. Belonging to the Magnolia family, it is no mean representative of that elegant group of ornamental trees. It is of the largest size, with large, glabrous foliage and beautiful greenish yellow flowers.

L. Tulipifera. *Yellow Poplar.* This grand American tree is unequaled when permitted sufficient space to develop its proportions. As a large lawn tree it has no imperfections, and should be included in the smallest list of showy flowering species.

MAGNOLIA Fraseri (Syn., *M. auriculata*). *Ear-Leaved Magnolia.* A medium-sized native tree, with spreading branches and long, ear-shaped leaves in clusters. Flowers large, pure white; cones rose-colored, 3 or 4 inches long. This is a rapid-growing, healthy, ornamental species.

M. grandiflora. *Great Laurel Magnolia.* This magnificent native tree is found in the southern states, and, unfortunately, is not suited to our climate north of Washington. It has elegant, leathery, evergreen leaves and large, pure white flowers.

M. macrophylla. *Great-Leaved Magnolia.* Although a southern species, this succeeds admirably in the Middle States, forming a medium-sized tree, with leaves from 1 to 3 feet long, and immense white flowers.

M. tripetala (Syn., *M. umbrella*). *Umbrella Tree.* A rapid-growing, medium-sized species, with large, dark green leaves and large white, slightly fragrant flowers. It is quite hardy and reliable here, and forms a valuable specimen for lawn planting.

M. Virginiana (Syn., *M. glauca*). *Sweet Bay.* One of the most desirable small trees known to gardeners. The leaves are sub-evergreen, leathery, deep green above and glaucous beneath; flowers creamy white, deliciously fragrant.

MAGNOLIA**Magnolia**

This magnificent family is indeed difficult to surpass in the flora of the world. Taking into consideration their rapidity of growth, clean, healthy foliage, beautiful flowers, regularity of form, comparative freedom from insects and disease, and, lastly, their general hardiness, we cannot say too much in their favor.

Sec. I.**American Species**

M. acuminata. *Cucumber Tree.* One of our largest native trees, forming a straight trunk, with oval, light green leaves and greenish yellow flowers in June. It is one of the most esteemed specimens for large lawns, is of rapid, upright growth, and quite hardy and reliable in good soil.

M. cordata. *Yellow-Flowering Magnolia.* A small native tree, rare in cultivation, but hardy and desirable. Leaves roundish, slightly cordate, whitish downy beneath. Flowers yellow.



Magnolia conspicua. (See page 18.)



Magnolia stellata.

Sec. II. Asiatic Species of Magnolia

MAGNOLIA conspicua. *Yulan Magnolia.* A medium-sized tree from China, with obovate leaves and erect pure white flowers. It is one of the most conspicuous and beautiful of the foreign species and well adapted for lawn purposes.

M. hypoleuca. One of the newer introductions from Japan, where it forms a medium-sized or large tree of exceptional beauty. It is entirely hardy here and resembles *M. tripetala* in general appearance, but has more fragrant flowers and large, bright scarlet cones.

M. obovata (Syn., *M. purpurea*). *Purple Magnolia.* A large shrub or small tree, with short, dark leaves and numerous dark purple tulip-like flowers. It is entirely hardy, and adapted for grouping with other large shrubs. Native of China.

M. parvifolia. *Small-Leaved Magnolia.* A native of China, forming a small tree, with rather small, deep green leaves and white, somewhat fragrant flowers. It is a handsome large shrub when branched from the ground and covered with bloom. Hardy and fine.

M. stellata (Syn., *M. Halliana*). *Star-Shaped Magnolia.* An elegant little shrub, blooming very early in spring. Flowers pure white, semi-double, and very profuse. It is a hardy native of China, but is grown in the Japanese gardens quite extensively.

Sec. III. Hybrids

M. Lennei. *Red-Flowering Magnolia.* One of the most valuable of the family, on account of its conspicuous reddish purple flowers and its tendency to bloom throughout the season. Leaves not unlike *M. conspicua*'s and inflorescence similar to that of its parent, *M. obovata*.

M. Norbertiana. *Norbert's Magnolia.* A fine, strong-growing hybrid, raised from seed of *M. conspicua*

MAGNOLIA, continued

crossed with *M. obovata*, and partaking of the character of each. It is somewhat similar to *M. Soulangeana*, but lighter in color.

M. Soulangeana. *Soulange's Magnolia.* A grand variety in the way of the preceding, but the purple marking on the flowers is very decided and beautiful. It is a strong grower, and forms a handsome small tree, blooming profusely late in April.

MALUS. Apple

This genus, represented by our familiar orchard fruit, contains several elegant ornamental varieties well adapted for the lawn. Those from Japan are especially attractive when in full bloom, and have proved hardy with us.

M. angustifolia fl. pl. *Bechtel's Double-Flowering Crab Apple.* This elegant new Crab Apple is deserving of unlimited praise, not only on account of the beauty of its rose-like flowers, but for their delicate perfume. It makes a small tree, with oblong dark

green leaves. Flowers bright pink.

M. coronaria. *American Crab Apple.* A small native tree worthy of cultivation for the lawn. Flowers numerous, rose-colored, and delightfully fragrant. Fruit greenish yellow, also very fragrant. *Pyrus coronaria* of the older botanies.

M. prunifolia. *Siberian Crab Apple.* A small tree, native of Siberia, beautiful both in flower and fruit. Its extreme hardiness and adaptation to any position are unquestioned. We cultivate about **10 distinct varieties**, descriptions of which are given in our General Fruit Catalogue, No. 1.

M. spectabilis. *Chinese Crab Apple.* A native of China, growing from 20 to 30 feet in height, with flowers in large sessile umbels, of a rich, deep rose-color during May. The flowers are only semi-double, but exceedingly attractive even when in bud.

M. Toringo. *Japanese Apple.* Says Professor Sargent: "In early spring this is one of the most beautiful of the trees found in our gardens, where it is perfectly hardy, and it covers itself every year with fragrant pink or red single or semi-double flowers. It is perhaps the only indigenous species in Japan."

var. floribunda. *Free-Flowering Crab Apple.* This is one of the distinct and very pretty forms of the above, with long slender branches and dark green foliage. The flowers change from rose-color to pure white, and are produced in great abundance. Fruit very small, not larger than peas, and exceedingly ornamental.

var. Parkmani. *Parkman's Double-Flowering Crab Apple.* Another new and uncommonly attractive variety, with beautiful pendent flowers, very double, and bright red in color. Foliage deep green. It makes an elegant specimen for the lawn.

var. Tenori. *New Japanese Crab Apple.* An elegant novelty in this class of ornamental Apples, with very showy, double, flesh-colored flowers. It is a fine, healthy grower, and quite distinct.

MOHRODENDRON (Halesia)**Silver Bell**

A small genus of three species, native of south-eastern North America, hardy here and exceedingly attractive when in bloom. They are small trees, with drooping, bell-shaped flowers in short racemes early in the season.

M. Carolinum (Syn., *Halesia tetraptera*). *Snowdrop Tree*. An attractive little tree, with mostly ovate dark green leaves and fascicles of white flowers in March and April. When in bloom this pretty species appears covered with its pendent white bells. Hardy and fine.

MORUS. Mulberry

Deciduous trees of medium size, valued principally for their fruit, although grown for ornament as well. The foliage is used almost exclusively as food for silkworms. The species are generally hardy and of rapid growth, with broad, spreading tops.

M. alba. *White Mulberry*. Of medium size, with glossy leaves, native of China. It is rather slender in growth, with light-colored bark, and produces large crops of whitish fruit that is edible and pleasant.

var. multicaulis. *Chinese Mulberry*. Introduced into our collections many years since as food for silkworms. It is a strong grower, with very large leaves, and bears a fine crop of large blackish purple fruit of good flavor.

var. "Downing's Everbearing." A chance seedling of the above, raised by the late Chas. Downing. The fruit is superior in quality and is produced sparingly all through the season.

var. Moretti. *Russian Mulberry*. Of comparatively recent introduction, bearing large crops of rather small, black, sweet fruit. It is very hardy, grows rapidly, and makes quite a large tree.

var. pendula. *Weeping Mulberry*. This unique form was raised by John C. Teas, of Carthage, Missouri. It is decidedly one of the most perfect and natural weeping trees in the entire class of such novelties. Entirely hardy, with long, slender branches pendulous to the ground. A form of the Russian Mulberry, with similar foliage and fruit.

NYSSA. Tupelo

A small genus, most species of which are natives of the United States. They are noted for their rough bark, dark shining green leaves, blackish drupes, and remarkably tough wood. They are quite ornamental in character, the foliage changing in autumn to a brilliant crimson tint.

N. sylvatica (Syn., *N. multiflora*). *Sour Gum*. A very large native tree, with horizontal branches and shining leaves. Found mostly in low grounds, but succeeds well in high situations and forms really beautiful specimens. Bark very rough.

PAULOWNIA

A monotypic genus, native of China but cultivated in Japanese gardens. Leaves very large, those on young trees often of immense size. Flowers in terminal panicles, very conspicuous, fragrant and beautiful.

P. imperialis. *Paulownia*. A very showy and valuable ornamental tree of medium size and rapid growth. The flowers are blue, or rather bluish lilac, and in shape not unlike those of the glloxinia. Blooms in early summer and is hardy here.

PLATANUS. Plane Tree

A small genus, found in the northern temperate zone. The various species are large, of rapid growth, and esteemed for their value as lawn trees or for avenues. They are frequently known as *Sycamores*.

P. orientalis. *Oriental Plane*, or *Buttonwood*. An exceedingly valuable tree for avenue planting, owing to its quick growth, immunity from injurious insects and diseases, and clean, healthy foliage. It is also prized for the lawn, where it makes a quick shade and presents a unique appearance.

POPULUS. Poplar

A genus of exceedingly rapid-growing trees, with heart-shaped toothed leaves, and mostly angular branches. More or less inclined to produce numerous suckers, although some species are comparatively free from this defect.

P. alba Bolleana. *Silvery Upright Poplar*. A very distinct form of the well-known Silver Abele, with a strictly erect habit and white foliage. Valuable for contrasting with dark foliage and spreading branches.

P. deltoides (Syn., *P. monilifera*). *Carolina Poplar*, *Cottonwood*. Perhaps the most popular of all rapid-growing trees for avenues and streets. It rarely produces suckers from the roots, and is a healthy, hardy tree, with ample foliage. Of upright growth; needs an occasional pruning.

var. folius aureus. *Van Geert's Golden Poplar*. Similar to the Carolina Poplar in growth, etc., but with foliage of a beautiful golden tint. It forms an attractive contrast to other trees on the lawn, especially to Conifers.



Malus angustifolia. (See preceding page.)



Quercus palustris.

POPULUS grandidentata penduliformis (Syn., *P. Græca pendula*). *Weeping Poplar*. A decidedly pendulous form, with long, slender branches, and bright green, dentate leaves. The growth is strong, the tree hardy and reliable.

P. nigra Italica (Syn., *P. dilatata*). *Lombardy Poplar*. Every one is acquainted with this old relic of a generation of past gardeners. It is the most fastigiate of erect-growing trees, and for producing marked effects in grouping it has no equal.

P. "Volga" (?). *Russian Poplar*. A new and very much eulogized tree, of whose antecedents we have but little information. It is claimed to be extremely hardy and a rapid-growing shade tree.

PRUNUS. Plum, Cherry, etc.

Although grown largely for their useful crops of fruit, this valuable genus supplies our collections with species of the most ornamental character. The newer introductions from Japan are exceptionally showy and have proved entirely hardy with us.

P. avium fl. pl. *Common Double-Flowering Cherry*. A beautiful form of the ordinary black-fruited Cherry, with perfectly double, pure white blossoms, produced in clusters and in great profusion. Grows large, and is very conspicuous when in bloom.

P. Mahaleb. *Mahaleb Cherry, Perfumed Cherry*. A small tree, native of Europe, with rounded head, pale, smooth bark, and ovate, smooth leaves. The corymbs of flowers are pure white, exceedingly fragrant, and so numerous as to cover the entire surface of the branches.

P. Padus. *European Bird Cherry*. A small tree, with spreading branches, native of Europe and northern Asia. It is one of our finest ornamental trees, es-

PRUNUS. continued

pecially when covered with long, drooping clusters of white, highly fragrant flowers. Generally branched from the ground, resembling a round, dense mass of foliage.

P. pendula. *Japanese Weeping Cherry*. A truly beautiful small or medium-sized tree, with long, very slender branches and a multitude of pretty pink flowers. It is quite hardy and forms a conspicuous object in a collection, resembling a living green fountain.

P. pseudo-cerasus. *Japanese Double-Flowering Cherry*. These magnificent trees, of which we cultivate two distinct colors, can not be adequately described, except by comparing them to charming double roses. One form has white flowers and the other bright pink bloom. Both are hardy and reliable.

P. serotina. *Wild Black Cherry*. A well-known native species, forming quite a large tree, with elongated racemes of conspicuous white, delightfully fragrant flowers, preceding globular, dark purple fruit.

QUERCUS. Oak

The most valuable genus of trees in the entire list, not only for their estimable lumber, but for their value as forest trees, for parks and lawns of every description. In congenial soils and with proper cultivation, they are not of slow growth; and their spreading heads and healthy foliage entitle them to prominence.

Q. alba. *White Oak*. One of the largest and most desirable of our native deciduous trees. Although common in our forests, it is certainly unsurpassed for lawns where it can develop its proportions. Leaves smooth, bright green above, glaucous beneath.

Q. coccinea. *Scarlet Oak*. A large tree, native of the United States, with deeply lobed leaves of shining green, changing in autumn to brilliant scarlet. It is one of our most beautiful shade trees, and worthy of extensive distribution.

Q. macrocarpa. *Bur Oak*. A native western tree, striking in character and of medium size. The branches are usually covered with corky bark, and the large leaves are distinctly marked, being very deeply lobed, pale beneath.

Q. palustris. *Pin Oak*. Perhaps the most popular species for ornamental planting. Generally of medium size, with drooping branches and bright green, shining leaves. For either lawn or avenue planting it is an exceedingly handsome tree.

Q. phellos. *Willow Oak*. As its name suggests, this beautiful native tree resembles the willow family in the shape of its leaves, which are narrow and without any lobes. It grows rapidly and forms a large or medium-sized tree. Grows in low grounds.

Q. prinus. *Swamp Chestnut Oak*. A fine large native tree, found mostly in moist soil but well adapted to dry, light ground. Leaves resemble the chestnut in character. Growth moderately rapid, of pleasing appearance.

Q. robur. *British Oak*. A large umbrageous species that has proved generally reliable with us. The foliage is not unlike our White Oak's but smaller. Tree a rapid grower when fully established, and valuable for lawn planting.

var. atropurpurea. *Purple-Leaved Oak*. An attractive form, with rich dark purple foliage, retaining its color well through the summer. It presents a rounded, compact head, with an occasional clipping of the stronger shoots.

QUERCUS robur, var. concordia. *Golden-Leaved Oak.* An elegant ornamental tree, with notable rich yellow foliage, rarely, if ever, scorching in the full sun. It is a good healthy grower, and very conspicuous in a collection; in fact, the best golden-leaved form in the entire list of deciduous trees.

Q. rubra. *Red Oak.* Another estimable native species of large size, with deeply cut, smooth, shining leaves, turning brilliant red in autumn. It is a moderately rapid grower when established, and is always a marked type among the Oaks.

RHUS. Sumach

A large genus, mostly shrubs, several of which are natives of the United States. From an ornamental point of view, they are valuable for the conspicuous panicles of fruit and brilliant autumnal foliage. Of very easy cultivation, and best adapted for massing.

R. cotinus. *Mist Tree, Smoke Tree.* A showy small tree for embellishing our pleasure grounds, producing during summer a multitude of light, feathery panicles of pale purplish or pink flowers. Native of the south of Europe, but hardy with us.

R. hirta (Syn., *R. typhina*). *Staghorn Sumac.* Attains the height of a small to medium-sized tree, with pinnate leaves, and shoots covered with a velvety pubescence. The foliage in autumn changes to a bright yellow tint. A native species of value for landscape work.

For other species, see Deciduous Shrubs.

ROBINIA. Locust

A small genus of trees and shrubs, all natives of North America, and valuable in our collections for the beauty of their flowers. The drooping racemes of pea-shaped bloom are most attractive.

R. Pseudacacia. *Yellow Locust.* A well-known popular timber tree, of large size and erect growth, with rough bark and pendent racemes of white, exceedingly fragrant flowers. It is a fine lawn tree and very attractive.

SASSAFRAS. Sassafras

Another monotypic genus, native of the United States, with rough bark and ovate, sometimes lobed leaves. Fruit dark blue or purplish drupes; flowers yellow, arranged in umbels. The bark, especially that of the roots, is highly aromatic.

S. Sassafras (Syn., *S. officinale*, *Laurus Sassafras*). *Sassafras Tree.* Of medium height, with pale green leaves, woolly when young. The bark on the young branchlets is smooth and of a bright green tint. The Sassafras is being used for grouping effects in landscape gardening and presents distinct characteristics.

SALIX. Willow

This extensive genus of deciduous trees and shrubs is found throughout the temperate or colder parts of the world. In size, the species vary from the creeping plant of only 2 or 3 inches in height to trees of the largest magnitude. Only a few species are of sufficient importance to include among our ornamental trees.

SALIX Babylonica. *Common Weeping Willow.* This old Asiatic species is the perfection of a pendulous tree; is perfectly hardy, and a rapid grower. In the near vicinity of bodies of water, the Weeping Willow succeeds admirably, making a large tree.

var. Salomoni. *Salomon's Weeping Willow.* A distinct form of the above, with stronger growth, more glaucous leaves, and apparently larger in all its parts. It is a recent French introduction.

var. "Thurflow's Weeping Willow." A new form of the preceding, valued mainly on account of its extremely hardy constitution, succeeding perfectly where the Babylonian Willow will not thrive.

var. "Wisconsin Weeping Willow." Another valuable pendulous form that withstands the severity of our northern winters much better than the well-known species. A rapid-growing, handsome tree.

S. caprea pendula. *Kilmarnock Willow.* A creeping form of the Goat Willow, which, when grafted on upright stems, makes very attractive little trees.

S. pentandra. *Shining-Leaved Willow.* A moderate-sized tree, native of Great Britain, with smooth, shining branches and large, glossy foliage.

S. petiolaris (Syn., *S. rosmarinifolia*). *Rosemary-Leaved Willow.* A native shrub, with long, narrow, smooth, glaucous leaves. When grafted on straight stems they form elegant little miniature trees, creating a charming effect in gardening. Hardy and easily grown.

S. purpurea. *Fountain Willow.* This is frequently grown as the American Willow, but the title is a misnomer, owing to its being a native of Europe. It is naturally a low, spreading shrub, but when grafted standard high, makes a beautiful specimen.



Salix Babylonica.



Ulmus Americana. (A specimen in West Chester.)

SORBUS. Mountain Ash

This group of showy trees was formerly included in the genus *Pyrus*, but we follow the latest authorities in separating them. It is rather a small genus, native of the northern temperate zone, and valued for the beauty of its fruit.

S. Americana. *American Mountain Ash.* A small tree, with smooth bark and bright green, pinnate leaves. The greatest beauty of this species consists in the large clusters of brilliant red berries. Due care should be observed to destroy the "borers" which infest the entire family.

S. Aucuparia. *European Mountain Ash.* This differs from the above in having pubescent leaves and clusters of orange-colored fruit. It is a valuable tree for planting near the seacoast, as it resists the salt air well. The large cymes of white flowers are very attractive.

var. pendula. *Weeping Mountain Ash.* A curious and formal variety of the above, which, when grown as a standard, presents a decidedly pendulous habit. The foliage, flowers and fruit, are in all essential points similar to the parent.

var. quercifolia. *Oak-Leaved Mountain Ash.* An exceedingly distinct and quite handsome tree of medium size. It is an erect grower, with deeply lobed leaves, green above and grayish pubescent beneath. Hardy and vigorous.

TAXODIUM. Deciduous Cypress

A small genus of American trees belonging to the Conifers, although its leaves are deciduous. The light green, airy foliage is 2-ranked and linear. Trees are of large growth, very erect and conical in outline, with straight trunks. Found in low, swampy soil.

T. distichum. *Bald Cypress.* A native of our southern states, but entirely hardy and very satisfactory with us. This large and valuable tree has quite an air of distinction on the lawn, grows rapidly, and succeeds perfectly in dry soils, as well as in localities saturated with water.

TAXODIUM distichum, var. pendulum (Syn., *Glyptostrobus pendulus*, *T. sinensis pendulus*, etc.). *Weeping Glyptostrobus*, or *Cypress*. This unique and beautiful tree is only of medium size, with an outline similar to the Lombardy Poplar, but having its branchlets drooping at maturity. The leaves are all closely appressed to the twigs and twisted, entirely unlike those of the species. It was for a long time considered a distinct genus, but is now known to be only a curious form of our Deciduous Cypress.

var. pendulum novum. *New Weeping Cypress.* Another form of recent introduction with branches and branchlets of a decided drooping habit. In all other respects identical with the species.

TILIA. Linden

Handsome large trees of rapid, healthy growth, well suited for either lawn planting or for avenues. The leaves are cordate and toothed, with pretty, very fragrant cream-colored flowers arranged in cymes.

T. Americana. *American Linden, or Basswood.* This is one of our finest rapid-growing trees, forming a large open head, with much larger foliage than the following species. It is a valuable tree to the apiarist on account of the honey secreted in its flowers.

T. argentea. *Silver-Leaved Linden.* Among our choicest ornamental trees; has no defects. It is a rapid grower, with very large foliage, pale green on the upper side, and downy white beneath.

var. pendula. *Weeping Linden.* Another charming variety, combining a graceful drooping habit with the beautiful silvery foliage of the preceding form. An adult specimen on the lawn is always conspicuous and distinct.

T. Europaea. *European Linden, Lime Tree.* An elegant ornamental tree, with a more compact form than the preceding. The leaves are also smaller, although of similar shape.

TOXYLON. Osage Orange

Is found in southern Arkansas, Indian Territory and southern Texas, but is reasonably hardy throughout the middle states. Its chief value is for hedging purposes, when properly pruned and cared for, owing to its numerous sharp spines.

T. pomiferum (Syn., *Maclura aurantiaca*). *Osage Orange.* As an ornamental tree this adds greatly to the effect of large groups by its ample foliage, large spreading top, and yellowish, orange-like fruit.

ULMUS. Elm

A valuable genus of trees, some of which attain a very large size. All are specially graceful and appropriate for lawn-planting. They prefer low, moist ground, but succeed in soil moderately dry if of good quality. Of rapid growth and spreading, more or less pendulous habit.

U. Americana. *White, or American Elm.* One of the grandest native forest trees. Of large size, with the branches gracefully drooping in a remarkably picturesque manner. Either on the lawn or for avenues, it is difficult to surpass.

var. pendula. *Weeping American Elm.* A striking variety of the above, having its branches even more spreading and pendulous than the species. It is particularly vigorous in growth and may be classed among our finest specimen trees.

U. racemosa. *Corky White Elm.* An excellent species, mostly resembling the preceding, but with corky ridges frequently noticed on the branches. It is distinctly a northern tree and exceptionally hardy.



Hydrangea paniculata grandiflora. (See page 30.)

DECIDUOUS SHRUBS

WING to the increased demand for this class of plants, we have for several years past paid special attention to their culture, so that we believe our collection is unexcelled in the country. To keep pace with the requirements of modern landscape architects, we have added to our former list several native species of undoubted excellence, and the later introductions from Japan and elsewhere. An annual application of old, well-rotted manure or rich compost must be dug into the soil around shrubs to obtain favorable results, and a slight trimming of over-luxuriant branches will prove beneficial.

ACER. Maple

The Japan Maples enumerated here are among the most attractive large shrubs in use.

After carefully testing the long lists of varieties found in foreign catalogues, we are fully convinced that the following constitute the cream of the collection and are all it is advantageous to cultivate:

A. polymorphum. *Japan Maple.* The ordinary green form with palmate leaves, which change in autumn to a beautiful crimson. It is highly deserving of cultivation, as it forms a large, compact mass of attractive foliage. Entirely hardy and may be pruned into any desired shape.

var. atropurpureum. *Blood-Red Japan Maple.* This is among the most serviceable and attractive shrubs suited to our climate. The rich purple foliage is retained until the latter part of summer, and is always exceedingly distinct from that of other forms. Naturally of dwarf habit, it needs only an occasional clipping of straggling shoots.

var. aureum (*A. Japonicum aureum*). *Golden Variegated Japan Maple.* The lobes in the foliage of this very marked variety are not so deeply cut as in the species, and the outline inclines to an oval, but the color through most of the season is light yellow.

ACER polymorphum, var. dissectum atropurpureum.

Purple Cut-Leaved Japan Maple. In color the same shade of purplish red as *Atropurpureum*, but with the leaves cut into fine fringe-like segments, which present a charming and unique appearance. Although not so vigorous as the last, it is usually quite hardy and reliable, and makes a fine contrast to other members of this pleasing group.

var. sanguineum. *Scarlet Japan Maple.* Differs from *Atropurpureum* in the tint being a bright scarlet shade of red, but in all other characteristics similar to that valuable variety. It is probably less vigorous in growth, with rather more slender branchlets.

ÆGLE. Japan Orange

A member of the Citrus family, which embraces the Orange, Lemon, Lime, Shaddock, etc. It derives its name from one of the Hesperides, and is generically distinct from all the others. Quite hardy south, and reasonably so as far north as Philadelphia.

AE. sepiaria (Syn., *Citrus* or *Limonia trifoliata*).

Hardy Orange. This curious large shrub is very thorny, and has roundish leaflets in threes. It produces a small yellowish, austere fruit, quite ornamental and attractive. Excellent for stocks upon which to bud the tender varieties.

ÆSCULUS. Horse Chestnut

A genus consisting mostly of large trees, some of which will be found under the heading of Deciduous Trees in this catalogue. The following species is a low, spreading shrub, with smooth fruit and rather smaller and smoother leaves than the Horse Chestnut proper.

AE. parviflora (Syn., *Æ. macrostachya*). *Dwarf Horse-Chestnut*. A charming specimen for the lawn, attaining only a few feet in height, but spreading over several yards. It blooms during June and July in very long, loose panicles of whitish flowers, with numerous prominent reddish stamens, imparting a fringe-like appearance to the inflorescence.

ALNUS. Alder

Small trees or large shrubs specially well suited for massing in low, wet soils. Their abundant foliage and curious, pendent catkins of male flowers in spring, as well as their entire hardiness, entitle them to more notice than they receive.

A. rugosa (Syn., *A. serrulata*). *Smooth Alder*. This is the common native Alder of the Middle States and is usually found along streams, growing from 6 to 12 feet high, with bright, green leaves, smooth on both sides. It shows to advantage when in large masses.

AMELANCHIER. Juneberry

A genus of small trees or shrubs bearing racemes of white flowers in April and May, followed in June by small, sweet, purplish fruits. The leaves are sharply serrated and of different shapes in each of the several marked varieties and species.

A. rotundifolia. *Round-Leaved Dwarf Juneberry*. A small shrub, spreading by means of underground stems. It has broad, roundish foliage and rather smaller petals than the species. A very pretty little shrub of easy cultivation.

AMORPHA. False Indigo

A group of hardy, rapid-growing shrubs, flowering in terminal spikes of a purplish or violet color. They are not specially handsome, but valuable for massing

in uncultivated locations. The odd-pinnate leaves are dark green and healthy in all soils.

A. fruticosa. *Common False Indigo*. A tall native shrub of very easy cultivation, blooming freely in June. The violet flowers are crowded in terminal spikes. Of rapid growth.

ANDROMEDA. Andromeda

Ericaceous shrubs of easy cultivation when in congenial soil. They require a light, loamy earth, with a liberal supply of decaying vegetable fiber. The little globular flowers are arranged in various shaped masses, and are generally white in color. They are hardy, neat in growth and exceedingly attractive in bloom.

A. arborea. See *Oxydendrum arboreum*.

A. ligustrina. See *Xolisma ligustrina*.

A. Mariana. See *Pieris Mariana*.

ARALIA (Ginseng Family)

Quite a large order, embracing several herbaceous plants. The large, shrubby species are of the easiest cultivation and are frequently employed for producing subtropical effects, on account of their compound leaves. The greenish or white flowers are produced in large umbels.

A. Chinensis (Syn., *A. Japonica*). *Chinese Hercules' Club*. Assumes the proportions of a small tree, with prickly stems and graceful, compound leaves. A large mass of this species creates an attractive appearance in a collection.

A. spinosa. *Hercules' Club, Angelica-tree*. A native shrub with stout, prickly stems and large bipinnately compound leaves. It is entirely hardy, and has numerous umbels of greenish white flowers.

AZALEA. False Honeysuckle

A genus of the most charming deciduous shrubs in cultivation. The only objection planters can make to their general use is the fact, applicable to all the Ericaceæ, that a loose, friable soil, abounding in vegetable matter, is essential to success. Old rotted sods and peat, or leaf-mold from the woods, are excellent for the purpose. For massing in partially shaded locations nothing can be more attractive than our several native species.

A. amoena. *Dwarf Azalea*.

An exceedingly pretty little bush, rarely growing more than 2 feet high, with an abundance of small, bright red flowers. It is partial to a somewhat shaded spot and well-drained soil, but is more readily grown than most of the species. Leaves evergreen.

A. arborescens. *Smooth Azalea*. A tall native shrub, often attaining 10 feet in height, with obovate leaves, green above and glaucous beneath. Flowers rose-colored and highly fragrant. Mountains of Virginia, North Carolina, etc. Entirely hardy with us; valuable.



Acer polymorphum. (See page 23.)



A Bed of Ghent Azaleas.

AZALEA flavum (Syn., *A. Pontica*). *Ghent Hybrid Azalea*. Owing to excessive hybridization, it is difficult to determine the exact origin of these grand varieties, some authors having recently classed them as mere forms of *A. Sinense*. At present we list them as above. Although preferring a shaded situation, they will succeed in almost any position not too hot, provided the soil is properly prepared and furnished with a liberal mulch. The flowers range in color from pale yellow to brilliant red, and are specially showy. These superb shrubs are richly deserving of a little extra care, forming, as they do, one of the most attractive features in any garden.

A. lutea (Syn., *A. calendulacea*). *Flame Azalea*. Found wild in the mountains of Pennsylvania, Virginia, Kentucky and southward, but in cultivation quite hardy throughout the Middle States. It is perhaps the most elegant and noticeable of all our native species when covered with brilliant orange-red flowers, which open simultaneously with the leaves. Generally forms a large shrub, attaining even a height of 10 feet, and specially showy when planted in large groups.

A. nudiflora. *Wild Honeysuckle*. Our wild Azalea, found common throughout the eastern states. Takes kindly to cultivation in proper soil and partially shaded locations. During April it produces an abundance of flesh-colored or pink flowers and grows 4 or 5 feet high.

A. Sinense (Syn., *A. mollis*). *Chinese Azalea*. A remarkably showy race, blooming quite early in the season. Flowers large, brilliant yellow, with reddish tint. It is of easy cultivation and very attractive when grown in beds. Quite hardy and a rapid grower when planted in congenial soil and partially shaded situation.

A. Vaseyi (Syn., *Rhododendron Vaseyi*). *Vasey's Azalea*. A comparatively new species from the mountains of North Carolina. Entirely hardy at the north, and exceedingly attractive. The flowers, which appear before the foliage, are a pretty shade of pink with mottled throats. It is quite a rapid grower and free bloomer.

A. viscosa. *Swamp Honeysuckle*. This neat species is found throughout the north, usually in low, swampy places, but succeeds on high ground under proper conditions. The flowers are pure white, very fragrant, and clammy. It generally grows from 4 to 6 feet high and blooms freely in June and July.

BERBERIS. Barberry

A genus composed of prickly shrubs, with yellow flowers in drooping racemes, followed by red fruit. This is a very effective group, not only for planting on the lawn, but for forming neat little hedges on the boundaries. They are all reasonably hardy, not particular in regard to soil, and of quick growth.

B. vulgaris. *Common Barberry*. The wild Barberry of Europe, which has become naturalized in New England. Our ordinary *B. Canadensis* is probably only a form of it. Foliage bright green, with bristly-toothed margins. Fruit bright scarlet and showy.

var. purpurea. *Purple-Leaved Barberry*. A well-known, serviceable shrub, differing from the above in its deep purple leaves. It is doubtless the best dark-leaved shrub in the entire list and is easily grown in any good soil. During May, when in bloom, the contrast is especially noticeable.

var. Thunbergii. *Thunberg's Barberry*. One of the most valuable introductions of later year. It is a native of China, but was introduced from Japan. Entirely hardy with us, and speedily forms a compact bush, with neat little leaves that change to rich scarlet in autumn. The abundance of bright red fruit is also exceedingly attractive, and, whether grown in groups or as a hedge, renders the effect very marked. It bears the shears well and makes a dense little screen.

BUTNERIA (Syn., *Calycanthus*)

Strong-growing shrubs, with ample foliage, natives of the mountains of Virginia and southward. Curious purplish flowers terminate the branches, and exhale an odor of ripe fruit; bark and foliage are also highly aromatic. Hardy, and valuable for large masses.

B. fertilis (Syn., *Calycanthus glaucus*). *Glaucous-Leaved Calycanthus*. A conspicuous and elegant species, with ovate or lanceolate leaves, glaucous-white beneath and glabrous or roughish above. This species grows much larger than any other in the genus, and produces much larger flowers than the others. This shrub is regarded by modern landscape gardeners as much superior to the old *B. florida*, on account of its clean, bright foliage, larger bloom, and more vigorous growth. It is of easy cultivation in any good soil.



Clethra alnifolia.

CALLICARPA. French Mulberry

A genus of medium-sized shrubs, valuable for their attractive violet-colored berries, which are produced in great abundance in the axils of the leaves. The flowers are inconspicuous, appearing in early summer, and the plant is reasonably hardy, although the immature tips of the annual growth are liable to be injured. The name is derived from two Greek words meaning "beautiful fruit."

C. purpurea. *Purple-Fruited Callicarpa.* This is certainly one of the most charming shrubs cultivated for beauty of fruit. It forms a neat, round bush about 4 feet in height, and during autumn the branches are literally covered with a wealth of purplish lilac berries or drupes; of easy culture in any reasonably good soil.

CARAGANA. Siberian Pea

Mostly tall-growing shrubs, hardy and valuable. The flowers are pea-shaped, yellowish and produced abundantly in May. In good soil this shrub grows very rapidly, and is well adapted for the background of masses.

C. arborescens. *Tree-Like Caragana.* A fine species attaining the size of a large tree. When covered with its elegant pea-shaped blossoms it makes a choice specimen.

CARYOPTERIS

One of the newer introductions from China, which, with us, is more like a herbaceous plant than a woody shrub. The root, however, is entirely hardy, and as the bloom always appears on the young shoots, there is an abundance of flowers every season.

C. mastacanthus. *Blue Spirea.* An elegant little plant, with verberna-like bloom, blooming freely until late in autumn. The flowers are pale blue or lavender, and exceedingly attractive. The plant attains a height of 3 to 4 feet, and forms a regular shaped specimen without pruning.

CEANOTHUS. Red Root

A genus embracing quite a number of species, all of which, however, are unsatisfactory, except our own common native shrub, as below. The flowers are arranged in oblong terminal fascicles, freely produced and quite attractive. Partial to dry, thoroughly drained banks, and creates a pretty effect when grown in masses.

C. Americanus. *New Jersey Tea.* Generally grows about 3 or 4 feet high, bushy and spreading, with an abundance of pure white flower-clusters in June and July. Of easiest cultivation, although an occasional unripe shoot is liable to be injured during severe winters. Branches and foliage downy.

CEPHALANTHUS. Button-Bush

Hardy shrubs bearing flowers in dense globular heads in July, and found in a wild state on the margins of streams and swamps. They will, however, succeed perfectly on high ground and are quite ornamental in cultivation.

C. occidentalis. *Western Cephalanthus.* This is sometimes known as "Pond Dogwood." It bears very attractive white flowers in spherical heads. The foliage is ample, acuminate, smooth and healthy; attains a height of from 3 to 5 feet.

CERCIS. Judas Tree

Large shrubs or small trees, very ornamental and of easy cultivation. Leaves rounded, heart-shaped. Noted for their reddish purple flowers in small umbel-like clusters in advance of the foliage. Growth quite rapid in good soil.

C. Canadensis. *Red-Bud.* See Deciduous Trees.

C. Chinensis. *Japan Judas Tree.* Usually known as *C. Japonica.* Decidedly one of the most useful introductions into American collections of ornamental shrubs. It grows several feet high, compact and rounded in outline, and is a perfect mass of color when in bloom. The foliage is also of an attractive dark glossy green tint. This superb shrub is seen to great advantage when planted in groups and belts, but is equally beautiful when standing singly on the lawn.

CLETHRA. White Alder

Among the most easily cultivated shrubs belonging to the Ericaceæ. Although found growing in low wet ground, the Clethras succeed apparently as well in high situations. They are greatly admired for their cheerful racemes of white fragrant flowers.

C. acuminata. *Tall Clethra.* From the mountains of Virginia, North Carolina, etc., where it forms a large shrub or small tree, with large acuminate leaves, pale beneath. The drooping racemes of white flowers are quite attractive.

C. alnifolia. *Sweet Pepper-Bush.* A small or medium sized shrub, mostly growing from 3 to 5 feet high, and producing, in late summer, numerous upright racemes of very fragrant white flowers. It is so entirely hardy, easy to cultivate, and withal so attractive, that every collection, however small, should contain at least one specimen. The flowers are full of honey and very attractive to bees.

COLUTEA. Bladder Senna

A genus composed of a few shrubs bearing pea-shaped flowers in axillary racemes; perhaps all are but varieties of one species, described below. Natives of the middle and south of Europe, and entirely hardy here.

C. arborescens. *Arborescent Colutea.* A very rapid-growing, large shrub, producing yellow flowers during summer. The bloom is succeeded by large bladder-like pods or legumes, assuming a reddish tint at maturity. It is of easy culture in almost any soil.

COMPTONIA. Sweet Fern

A genus of native shrubs. Composed of one species, closely allied to the Sweet Gale family. It is found mostly in sterile soils and does well in almost any situation. The leaves are lobed, deep green, and delightfully fragrant.

C. peregrina (Syn., *C. asplenifolia*). *Sweet Fern.* A small bush not over 1 or 2 feet in height, admirably adapted for planting dry banks, etc. It is quite fern-like in appearance, which, added to its aromatic perfume, entitles it to general notice for massing in cultivated grounds.

CORNUS. Dogwood

With the exception of *C. florida*, the family of Dogwoods are not showy when in bloom, but they are especially useful for the rich coloring of the bark in some species, and the bright autumnal tints in the foliage of almost all. They are rapid-growing, bushy shrubs, of great value to the landscape architect, who can discern beauty in the drupaceous fruits of various colors, as well as in the bright, healthy foliage of the entire family.

C. alternifolia. *Blue Dogwood.* Another native plant, quite distinct, which forms a large shrub or small tree. The peculiar arrangement of the branches gives the shrub a tabular or flattened aspect. The bark is greenish, striped with white; the fruit is deep blue.

C. amomum (Syn., *C. sericea*). *Silky Dogwood.* A native shrub, found usually in low, damp soil, but succeeding well on high ground also. Bark purplish; leaves ovate, pointed, with a silky pubescence on the under side. Fruit pale blue; growth less rapid than in most other species.

C. candidissima (Syn., *C. paniculata*). *Panicked Dogwood.* A medium-sized, very rapid-growing shrub, very much branched, with numerous panicles of pure white flowers. The branches are smooth and gray, with ovate-lanceolate foliage, whitish beneath. Fruit abundant and pure white. A native of the northern states, where it forms dense masses by numerous suckers.

C. circinata. *Round-Leaved Dogwood.* A large shrub, with greenish branches and roundish oval leaves, woolly underneath. The fruit is light blue. As the foliage is larger than in any other species, it is distinct all summer long. Quite rare in cultivation, but deserving of more consideration.

CORNUS Mas. *Cornelian Cherry.* This introduced species forms a large shrub or low tree. It is remarkable for the beauty of its yellow flowers and large, brilliant scarlet fruit. It is generally of slow growth, but of long duration, and may be recommended for extensive culture.

C. sanguinea. *English Dogwood.* The true *C. sanguinea* is very unlike *C. stolonifera*, having dark purplish red bark and dark purple fruit. It is not nearly so effective for ornamental purposes as the latter, although valuable for heavy masses of shrubbery and especially where little attention is given the plantation. It is occasionally sold under the name of *C. Siberica*.

var. foliis variegatis. *Variegated Dogwood.* A form of the preceding, having the foliage distinctly marked with pure white. It stands the direct rays of the sun with reasonable success, but in partial shade the effect is enhanced. It is quite hardy.

C. Spaethi. *Golden-Leaved Dogwood.* This is evidently a chance variety of one of the foregoing species, probably *C. alba*, and is a decided acquisition to ornamental grounds. The foliage is richly marked with yellow variegations, and does not burn badly in the full sun.

C. stolonifera (Syn., *C. alba*. *Erroneously C. sanguinea*). *Red-Twigged Dogwood.* Owing to its bright red bark, this species is more popular with planters than any other, but there is great confusion in the names, so that *C. sanguinea*, of Europe, an inferior species, is frequently substituted for this. Fruit white or lead-colored. Leaves ovate, pointed and whitish underneath.

var. aurea. *Golden-Twigged Dogwood.* A form of the above, just introduced into cultivation. The bark is bright golden yellow and makes a distinct and pretty contrast to the species. It is entirely hardy and of vigorous growth in any good soil.

var. marginata. *White-Margined Dogwood.* Another strictly new and very pleasing form of the Red-Twigged Dogwood, with a distinct white band around the edge of each leaf.



Deutzia, Pride of Rochester. See page 28.

CORYLUS. Hazel

A genus of strong-growing, rather coarse shrubs, but well suited for planting belts and masses in large plantations. The fruit is also valuable, and the shrubs are worthy of culture for this alone. They are all hardy and not particular in regard to soil.

C. Americana. Common Hazel. The nuts produced by this species are smaller than those of the European, but are sweet and of fine flavor. It makes a large bush from 4 to 8 feet high, and is found quite common in thickets, etc., throughout the northern states.

C. Avellana, var. laciniata. Cut-Leaved Hazel. A form of the European Hazel or Filbert, with the foliage deeply incised or lacinated. A striking and interesting shrub for grouping.

var. purpurea. Purple-Leaved Hazel or Filbert. The foliage of this attractive form is rich purple on first opening out, and for several weeks thereafter, but changes to a dark purplish green in autumn. It is, however, quite popular and distinct.

CYDONIA. Quince

This well-known genus, valuable for its fruit, contains but one really ornamental shrub, although there are numerous varieties of it in cultivation. They are all quite hardy and exceedingly attractive when in bloom, being useful not only for the lawn but for hedging purposes as well. They will grow in almost any kind of soil, even in soils quite retentive of moisture.

C. Japonica (Syn., *Pyrus Japonica*). Japan Quince. This is certainly one of the most brilliant-flowering shrubs in our entire list of available species. We grow large blocks of seedlings every year and, as they sport into every conceivable tint, a group of them is very attractive. The flowers are succeeded by large, fragrant green fruits.

DAPHNE. Daphne

A genus of low-growing shrubs, noted for the exquisite fragrance of their flowers. The following are hardy with us, and exceedingly pretty. They prefer well-drained, light soil, not too rich in stimulating manures.

D. cneorum. Dwarf Daphne. This dainty little species has persistent leaves. It rarely exceeds 12

DAPHNE, continued

inches in height, but is spreading in character. The pretty clusters of pink flowers are very agreeably fragrant, and continue in bloom for some time during early summer. Excellent for edging azalea beds, as they require the same kind of soil to thrive properly.

DEUTZIA. Deutzia

A genus of Japanese shrubs of the greatest use to planters. They are all hardy, rapid in growth, easily cultivated and exceedingly attractive in bloom. The large-growing kinds are available for screens and ornamental hedges.

D. crenata. Crenate-Leaved Deutzia. One of the best of hardy shrubs, bearing in June a great profusion of single white flowers on long, slender branches. Preferred by some to the several double-flowering varieties.

var. fl. pl. Double-Flowering Pink Deutzia. So named on account of the distinct pink or reddish stripes on the petals of the flowers. The bloom is perfectly double, resembling little rosettes, and is certainly one of the most distinct of the group.

var. candidissima. Double White-Flowering Deutzia. This extremely beautiful double form has snow-white flowers and blooms in the greatest profusion. It makes up well in flower decorations, and is a valuable specimen.

var. "Pride of Rochester." A valuable form raised at the Mt. Hope Nurseries, Rochester, New York. It is rather earlier in flowering than the others; double, white, with a tint of rose on back of petals. It is also claimed to be more vigorous in growth than others. Shown on page 27.

var. variegata. Variegated-Leaved Deutzia. Similar to *D. crenata*, except in the unique and curious markings on the foliage, which is striped and splashed with pure white in an erratic manner.

D. gracilis. Slender-Branched Deutzia. One of the most valuable shrubs in the entire list, for all purposes. Excellent for forcing under glass, as well as for single specimens and grouping on the lawn. It is entirely hardy and forms a small round plant, blooming freely early in June. Pure white.

D. hybrida Lemoinei. Lemoine's Deutzia. A newly introduced variety obtained by M. Lemoine, of France, by crossing *D. gracilis* on *D. parviflora*. Although the habit is dwarf, the flowers are large, pure white and produced freely. For forcing purposes it is a decided acquisition, being superior to *D. gracilis* under glass.

D. parviflora. Small-Flowered Deutzia. Introduced from northern China, where it is a beautiful large shrub, with stout branches and large corymbs of pure white flowers. It has proved hardy and valuable with us, as well as very distinct. Quite rare in collections.

DIERVILLA. Weigela

A group of very beautiful shrubs, easily grown and always in demand. They were introduced from Japan and are entirely hardy with us. We adhere to the correct classification of *Diervilla*, although the genus is popularly known as *Weigela*.

D. floribunda, "Eva Rathke" (Syn., *Weigela, E. Rathke*). A new and exceedingly showy



Deutzia gracilis.

DIERVILLA, continued

variety, with bright red flowers borne freely during early summer. It is very distinct and decidedly the best of its color. Rather slender in growth, with villous foliage.

- D. florida** (Syn., *Weigela rosea*). *Rose-Colored Weigela*. This highly meritorious shrub was the first of the Weigela group to be introduced into this country, and it remains as valuable a species for lawn and garden decoration as we possess. Its handsome rose-colored flowers are produced with remarkable freedom. Entirely hardy and of compact growth.

var. "Abel Carriere." One of the best of the newer forms of this popular genus, producing bright rose-colored flowers in great profusion during the month of June. It is a robust grower, with ample foliage.

var. nana variegata. *Variegated Weigela*. This is perhaps second to no other hard-wooded plant with variously colored leaves. It stands the sun well, and retains its well-marked tints until autumn. The flowers are lighter in color than *D. florida's*, but it is equally as free in bloom. The growth, however, is not so robust as the latter, and requires less trimming to preserve its compact form.

- D. grandiflora candida** (Syn., *Weigela candida*). *White-Flowering Weigela*. This is a distinct and valuable plant, much superior to most of the white Weigelas. It is a tall, vigorous shrub, producing in June and occasionally through the summer, a profusion of white or very pale flesh-colored flowers.



Diervilla.

DIMORPHANTHUS

A genus of shrubs and herbaceous plants from China and Japan. It is closely related to *Aralia*, and is equally useful for ornamental purposes, especially to produce a subtropical effect.

- D. Mandshuricus.** A tall-growing shrub, with prickly stems and very large, multifold, handsome leaves. It is a rapid grower and speedily produces a grand effect when planted in groups. Quite hardy with us, and showy when in bloom.

DIRCA. Leatherwood

A small genus, composed of a single species and very distinct in character. It forms a round, compact bush from 2 to 5 feet high, with exceedingly tough bark. The bright yellow flowers are produced in small clusters before the leaves.

- D. palustris.** *Moose-Wood*. This unique and pretty shrub makes a valuable plant for landscape work, especially when set in masses, as it is quite distinct from all others in general appearance. It is a northern native shrub, and will stand our winters.

ELÆAGNUS. Oleaster

A family of large shrubs, noted for the silvery appearance of the leaves and the showy, berry-like fruit. They grow rapidly, are generally hardy, and quite ornamental during autumn and winter.

- E. longipes.** *Edible-Fruited Oleaster*. One of the most ornamental of the genus, bearing a profusion of large, bright red fruits that are edible and pleasant to the taste. It is exceedingly popular with planters, being very conspicuous during the autumn months.

EUONYMUS. Spindle Tree

A genus composed of very dissimilar plants, a portion of which are evergreen and others deciduous. Again, while some species assume the size of small trees, others are merely dwarf shrubs or trailing vines. The deciduous species are all quite hardy and valuable for their fruit, as well as for their bright autumnal foliage. They are of easy culture and readily adapt themselves to most soils. Valuable for grouping on the outer edge of woodlands.

- E. alatus** (Syn., *E. monstrosus*). *Cork-Barked Euonymus*. One of the most charming shrubs in the entire list. The growth is short and the adult plant compact and attractive at all times, but during autumn, when full of its bright-colored fruit, and when the foliage is brilliant crimson-scarlet, the effect is unsurpassed. Bark corky.

- E. Americanus.** *Strawberry Bush*. A small native shrub, either upright or trailing, with bright green leaves and rough, warty crimson pods, that, bursting, reveal their bright scarlet seed-coverings. It is a fine addition to our shrubs with ornamental fruits.

- E. atropurpureus.** *Burning Bush*. This is a tall shrub, with smooth, deeply-lobed scarlet pods drooping on long stems. It is one of our most valuable native shrubs for ornament.

- E. Europæus.** *European Burning Bush*. This forms a small tree at maturity, and is one of the old-fashioned species still in demand. Its specially attractive feature is the rich crop of crimson fruits in autumn, from which the well-known common name is derived.

EXOCHORDA

This comparatively new genus is closely related to, and was separated from the spiræa. The only good species is the one described below, which is perfectly hardy, a vigorous grower and abundant bloomer.

E. grandiflora. *Pearl Flower.* A remarkably conspicuous and beautiful shrub when covered with its multitude of snow-white flowers, which are larger than those of any of its near congeners the spiræas. At maturity it forms a large shrub, clothed with handsome, smooth green leaves. A native of China. Blooms in May.

FORSYTHIA. Golden Bell

A valuable genus of shrubs from China and Japan, blooming very early in spring. Flowers yellow, drooping, borne in great profusion. Entirely hardy here and of the easiest culture.

F. Fortunei. *Fortune's Forsythia.* A strong-growing species, with stout, erect branches and rich green foliage, blooming in April and continuing for some time. It is a conspicuous object in the shrubbery.

F. intermedia. *Intermediate Forsythia.* An excellent variety. Erect in growth, somewhat slender, very profuse in bloom. The foliage is medium and bright green in color. Said to be more hardy than *F. viridissima*.

F. suspensa. *Weeping Forsythia.* This charming shrub is among the most graceful and attractive garden plants. The long slender shoots curve elegantly to the ground, and when covered by a wealth of bright yellow flowers, present a pleasing feature in any collection.

F. viridissima. *Golden Bell.* A well-known species, hardy with us, and a rapid grower. It comes from the north of China and blooms early in May. Flowers rather paler in color than the others, but very profuse and attractive.

HAMAMELIS. Witch-Hazel

A small genus of shrubs; the single species being found all over the Atlantic states. The flowers appear in little clusters late in autumn, during the fall of the leaf, and the fruit matures during the following summer.

H. Virginiana. *Common Witch-Hazel.* This fine native shrub found in thickets and damp woods, has oval, toothed leaves and small yellow flowers. It is a valuable aid to the gardener in forming large masses of bright foliage. Hardy and of easy culture.

HIBISCUS. Althæa

A large genus of plants, both hardy and tender. Those below are reliable shrubs, of great use in ornamental gardening. The flowers, both double and single, are very showy and open late in summer. They are of easy cultivation and not particular in the choice of soils. Often known as the "Rose of Sharon." The following are all distinct and can be highly recommended:

H. Syriacus amaranthus. Rich purple; fine.
var. bicolor. Double, white, with red stripes.
var. carnea plena. White, tipped with pink.
var. Comte des Flandres. Bright maroon.
var. Duchesse de Brabant. Deep crimson.
var. elegantissima. Bright pink, prettily striped.
var. "Fleur blanche." Pure white, single flower.
var. Jeanne d'Arc. Pure white; very full, and superior to any double white known.

HIBISCUS Syriacus, var. paeoniflora. Large, double, pink. Beautiful.

var. ranunculaeflora. White, with maroon center.

var. sanguinea. Dark crimson.

var. variegatus fl. pl. Double, purple. Leaves variegated.

var. "Violet claire." Clear violet.

var. Seedlings. Mixed colors; fine for screens.

HIPPOPHOE. Sea Buckthorn

A genus of small trees or large shrubs, with silky, grayish foliage. Their bright red berries are also quite attractive. Natives of Asia and Europe, but quite hardy here, and specially adapted for planting near the seacoast.

H. Rhamnoides. *Buckthorn-Like Hippophoe.* The most reliable of the genus. Leaves linear-lanceolate, minutely dotted above and silvery white beneath. The fruit is bright orange-colored and showy. Branches end in a spine.

HYDRANGEA

Hardy and half-hardy shrubs, natives of the United States, China and Japan. In this latitude the more tender varieties need a slight protection, which is easily supplied by placing a barrel over them during winter, and filling the same with dry leaves. The splendid corymbs of flowers fully repay the little trouble expended upon them.

H. arborescens. *Wild Hydrangea.* A native species found from Pennsylvania and Ohio to Florida, chiefly along the mountain ranges. It is a vigorous-growing shrub, with mostly fertile flowers in flat cymes. Leaves ovate, pointed, green on both sides.

H. Hortensia. *Garden Hydrangea.* A well-known old species from China, frequently used as a greenhouse plant, but which proves hardy with proper protection. Flower-heads large, showy, with a pretty pink tint, which changes to blue when iron filings or swamp-muck are mixed with the soil.

var. cyanoclada (Syn., *var. ramulis pictis*). *Red-Branched Hydrangea.* This is a valuable and very showy form with dark chocolate-colored stems and large corymbs of bright red flowers. If unprotected during winter the old stems will be replaced with young shoots in spring.

var. Otaksa. A meritorious variety from Japan, with very large corymbs of beautiful pink flowers. Of vigorous growth in moist, rich soil, and blooms freely even when quite young.

var. Thomas Hogg. Another Japanese introduction, with snow-white corymbs of flowers, resembling the common snowball, although very much larger. It grows freely and is reasonably hardy.

H. paniculata (Syn., *H. deutziaefolia*). *Panicled Hydrangea.* A valuable Japanese shrub, with long panicles of white flowers, blooming earlier than its showy variety and in less compact trusses. It is, however, very conspicuous and beautiful.

var. paniculata grandiflora. *Great-Panicled Hydrangea.* This is surely one of the best introductions of later years. Growth strong and erect, with immense panicles of snow-white bloom, if the soil is rich. It needs an annual and severe pruning to obtain the best results. Shown on page 23.

H. radiata (Syn., *H. nivea*, of Michx.). *Snowy Leaved Hydrangea.* A native of the southern states, but hardy and conspicuous with us. The ovate leaves are snow-white beneath and very handsome. The flat cymes are not very noticeable, but have rather large sterile flowers around the margins.

HYPERICUM. St. John's-Wort

Shrubs and herbs, with mostly yellow flowers. The shrubby species are useful for grouping on the outer edge of larger plants, as they are rather dwarf in growth, with a profusion of bloom. The form is compact and rounded, with somewhat persistent leaves.

H. Moserianum. A novelty of decided merit on account of its large, glistening golden yellow flowers, produced freely from midsummer until hard frost. It is quite dwarf in habit, and unless well protected during winter the branches are usually killed to the ground, although dormant buds at the roots rapidly form a new top the succeeding summer.

H. prolificum. *Shrubby St. John's-Wort.* This excellent shrub blooms profusely from the middle of summer until autumn and its bright yellow flowers are especially attractive at this season. The foliage is also very profuse, glaucous and pleasing. It is sub-evergreen in character, and the plant not particular in regard to the soil.

ILEX. Holly

Trees and shrubs, both evergreen and deciduous. Those with persistent leaves must have the foliage all removed before transplanting to avoid almost certain failure. The deciduous species are among our choicest shrubs with ornamental fruit. They are partial to low, moist situations, although this feature is not strictly essential.

I. monticola. *Large-Leaved Holly.* A mountain species, rare in cultivation, with smooth, sharply serrate leaves, changing to crimson in autumn. The reddish or purplish fruit is very showy, especially when grown in large clumps.

I. verticillata. *Black Alder.* This popular shrub is a well-known native of our swamps and low grounds. It flowers during May and June in clusters of small white blooms, which are succeeded by brilliant scarlet fruits in autumn. The autumn tint of the foliage is particularly attractive and marked.

ITEA. Itea

A small genus, consisting of the following single species, found near the Atlantic coast from New Jersey to Florida. It blooms in dense racemes of white flowers. Entirely hardy here and succeeds in ordinary garden soil.

I. Virginica. *Virginian Itea.* Admirably suited for planting in low, moist soil, where it produces a multitude of pure white flowers. It is of only medium height, has lanceolate leaves and blooms in June.

KERRIA. Corchorus

A genus of Japanese shrubs which, according to some botanical authors, is classed with *Corchorus*. They are mostly hardy here, although occasionally injured by the winter. The bright yellow flowers are exceedingly attractive and of great use in the shrubbery.

K. Japonica fl. pl. *Double-Flowering Corchorus.* This old-fashioned shrub is an erect grower, with pale green bark and very double yellow flowers. It blooms profusely from the last of June until autumn, the globular flowers being very conspicuous.

var. variegata. *Variegated-Leaved Corchorus.* This is not so vigorous in growth as the preceding, but forms a round twiggy bush, with very decided white markings on the leaves. The bloom, however, is quite similar to the above, but not so profuse.

LESPEDeza. Bush-Clover

A large genus of perennial plants, found abundantly in our woodlands. The violet or purplish flowers are disposed in clusters or panicles. The following cultivated species is bush-like in appearance, with leaves in threes.

L. Sieboldi (Syn., *Desmodium penduliflorum*). *Japan Bush-Clover.* Forms a mass of twiggy branches 3 or 4 feet in height. During late summer and early autumn it is very beautiful, with numerous drooping clusters of bright pink flowers. Although strictly an herbaceous plant, the general appearance strongly suggests a woody shrub.

LIGUSTRUM. Privet

In addition to their recognized value for hedging purposes, the Privets are all useful for planting on the lawn. They are mostly hardy, readily grown in any soil, and may be pruned severely. The bloom is in terminal racemes of white flowers; the leaves in the various species are exceedingly dissimilar and sub-evergreen. The berries, also, are quite ornamental.

L. Ibota. *Chinese Privet.* A noticeable species both in growth and foliage. It is very vigorous, has distinct, deep green leaves and numerous racemes of pure white, fragrant flowers. Excellent for hedging purposes and forms a beautiful specimen plant.

var. Amurensis. *Amoor River Privet.* A valuable, rapid-growing form, especially adapted to the southern states, where it is used extensively for hedging purposes, and retains its foliage throughout the year. The leaves are light green and the beautiful white racemes of flowers are quite striking.

L. Japonicum (Syn., *L. ovalifolium*). *California Privet.* The most popular, as it is the most available hedge plant with deciduous leaves. Growth strong, with beautiful glossy foliage and showy racemes of pure white bloom, which entitle it to a position among our valuable ornamental shrubs. Native of China and Japan.

var. variegata. *Variegated-Leaved Privet.* A very distinctly marked variety of the above, with stripes of yellow on its green leaves. It is entirely hardy, but frequently develops an inclination to return to its normal condition.

L. Sinense. *Silvery-Leaved Privet.* This distinct and beautiful species is from China, where it forms large bushes, but with us it is dwarfier in character. The lanceolate leaves are covered with a whitish pubescence and occasionally have a distinct white margin. Flowers pure white, followed by brown berries.

L. vulgare. *Common Privet.* This well-known shrub is naturalized from Europe, and is of use in collections either as a specimen plant or for hedging purposes. The leaves are dark green and smooth. Flowers in showy panicles in May and June. Berries black and conspicuous.

var. pendula. *Weeping Privet.* Differs from the species only in the pendulous character of some of the branches, which imparts a straggling appearance to the shrub.

LONICERA. Bush Honeysuckle

A genus composed of twining vines and erect bushy shrubs. The most valuable of the latter class are described on the next page; the former under the heading of vines and creepers. They are in demand not merely on account of their pretty flowers, but also for the attractive fruit so plentifully produced in autumn.

Loniceræ fragrantissima. *Early Fragrant Honeysuckle.* Introduced from China. Valued for the extreme earliness of its bloom as well as the very decided fragrance of its whitish flowers. The foliage is subevergreen and very distinct.

L. Morrowi. *Morrow's Upright Honeysuckle.* A species from Japan, recently introduced, and a decided acquisition. It is a strong, upright grower, blooming profusely in May and June; flowers pure white. During autumn its bright red berries are specially attractive. Hardy and easily grown.

L. Tatarica. *Tartarian Honeysuckle.* This fine species has long been in cultivation and is highly esteemed for its fragrant pink flowers and beautiful orange-colored berries. It grows from 4 to 6 feet in height and flowers in May.

var. alba. *White Tartarian Honeysuckle.* Differs only in the color of the flowers, which, in this variety, are pure white. Forms a pretty contrast to the species when grouped with it.

var. grandiflora. *Large-Flowering Tartarian Honeysuckle.* A very distinct form which is perhaps the most useful of the genus. It is a strong grower and prolific bloomer, with large pink flowers prettily striped with white. The berries are also as conspicuous and showy as the others.



Peony.

MAACKIA

A small genus of shrubs from Japan, belonging to the natural order Leguminosæ. Leaves compound, deep green and very graceful. These are rapid-growing small trees, quite hardy with us, and rare in cultivation.

M. Amurensis. This beautiful large shrub or small tree is a native of the valley of the Amoor and is common in all the forest regions of northern Japan. It bears large spikes of elegant white flowers. One of the most desirable novelties in our collection.

MYRICA. Wax-Myrtle

A group of shrubs chiefly valued on account of the pleasing fragrance of the numerous resinous glands dotted over the surface of the foliage. They are of

very easy culture in almost any soil, especially if light or sandy. Evergreen at the south, but deciduous with us.

M. cerifera. *Bayberry.* A native shrub, with an agreeable aromatic odor, common along the coast in sandy soil. Although generally of rather dwarf size, in good soil it frequently attains a height of 6 or 8 feet. Valuable for massing where many of our flowering shrubs will not succeed.

M. Gale. *Sweet Gale.* Another native species found along the margins of streams in the mountains. It is a northern shrub, growing from 3 to 5 feet high and of the easiest cultivation even in ordinary dry soil. Also very fragrant in all its parts.

OPULASTER. Wild Opulus

A small genus of shrubs separated from the Spiræa family. All natives of this country except one Manchurian species. Their distinguishing features are palmately lobed foliage and white flowers in terminal corymbs.

O. opulifolius. *Ninebark.* A tall, coarse-growing, much branched shrub, with bark peeling off in strips. The conspicuous reddish heads of fruit remain on the plant for a long time. Flowers in round corymbs and very conspicuous. Growth rapid. This is the *Spiræa opulifolia* of older botanists.

var. aurea. *Golden Spiræa.* A distinct form of the above, with the foliage of a decided yellowish tint, which holds its color well all through the season. It is sometimes used for hedging purposes as well as for groups.

OXYDENDRUM. Sourwood

A genus consisting of a single species separated from Andromeda. It forms a small tree with acuminate leaves, quite sour to the taste. With us it is comparatively rare in cultivation, but is highly deserving of more attention.

O. arboreum (Syn., *Andromeda arborea*). *Sorrel Tree.* This pretty, graceful species is covered during April and May with long, drooping racemes of white flowers. A native of the southern states, but succeeds well with us.

PÆONIA. Peony

There are two distinct classes belonging to this beautiful genus, one of which is strictly herbaceous, with tuberous roots; the other forms medium-sized shrubs with woody stems and branches. For description of the former, we refer to the heading of Hardy Perennials.

P. Moutan. *Tree Peony.* Decidedly one of the most elegant and showy shrubs that can be used for garden decoration. The gorgeous large flowers of named varieties are exceedingly attractive when properly grown, as they require a deep, rich soil, with an abundance of well-rotted manure.

PHILADELPHUS. Mock Orange

A group of shrubs frequently listed under the misnomer of Syringa, which is the generic title of the Lilacs, thus causing confusion between two very distinct families. They are all hardy and easily grown, with white, mostly fragrant flowers in great profusion.

P. cordatus. *Heart-Shaped Mock Orange.* A strong-growing species with cordate-dentate leaves and numerous medium-sized flowers. Well adapted to dry soils. Fine in groups.

PHILADELPHUS coronarius. *Garland Mock-Orange.*

This old-time favorite, with its wealth of creamy white flowers and rich orange-blossom fragrance, should be included in the smallest collections. It is a strong grower and valuable for cut-flowers.

var. dianthaeflorus plenus. *Carnation-Flowered Mock-Orange.* A very distinct variety, bushy in habit, bearing large, perfectly double, very fragrant white flowers. It is desirable for cut-flowers and holds well after removal from the plant.

var. nanus. *Dwarf Mock-Orange.* A unique dwarf form, not exceeding 2 feet in height and making a dense mass of small branchlets. It is not a free bloomer, but this defect is covered by the numerous crowded leaves.

var. nanus aureus. *Golden Mock-Orange, or Syringa (incorrectly).* A beautiful variety, with the foliage all golden yellow, which stands the direct rays of the sun without scorching. It is dwarf in habit and blooms quite freely. Altogether, it is unsurpassed among golden-leaved shrubs.

var. nivalis fl. pl. *Double Snow-White Mock-Orange.* This is another double-flowering form, with pure white bloom and decidedly odorous. It is more dwarf in habit than *Dianthaeflorus*, and has slenderer branches, but is equally as fine, although not very fragrant.

P. inodorus. *Scentless Mock-Orange.* From the mountains of Virginia and southward. Has ovate glabrous leaves and large white flowers without any fragrance. It is a strong, erect shrub, several feet in height, and entirely hardy.

var. grandiflorus. *Large-Flowered Mock-Orange.* A well-marked form of the preceding, with somewhat pubescent leaves and larger, very conspicuous white flowers. It makes a large shrub with recurved branches, and is quite valuable as a specimen plant.

var. sanguineus. *Red-Twigged Mock-Orange.* Distinct on account of its dark reddish-colored bark. It is rather slender in growth, with numerous twiggy branches, and a free bloomer. Fragrant.

PIERIS. Fetter Bush. Stagger Bush

Formerly arranged with the *Andromeda*, but distinct from that genus of ericaceous shrubs. They, in common with others of the family, prefer a soil abounding in light vegetable matter and plenty of moisture. Leaves subevergreen. All free blooming, with very attractive flowers.

P. Mariana (Syn., *Andromeda Mariana*). *Stagger Bush.* A small shrub, mostly found in sandy soil near the coast, with erect, slender branches, glabrous leaves and drooping umbels of white bell-shaped flowers. They would look like clustered lilies-of-the-valley but for their red stamens. It is one of our beautiful native shrubs that deserves culture.

POTENTILLA. Cinquefoil

A very large genus of shrubs and herbs, all natives of the northern temperate zone. They have compound leaves, and mostly yellow flowers. All are quite hardy in cultivation and readily adapt themselves to any locality.

P. fruticosa. *Shrubby Cinquefoil.* A native shrubby species, of erect habit, very compact, and with long, silky, pubescent leaves. The flowers are pretty, of a bright yellow color, and are quite showy when the plants are massed together.

PRUNUS. Plum

Trees or shrubs with quite showy flowers, white or pinkish in color and clustered. In addition to the popular varieties grown for the fruit, the following are all ornamental shrubs of undoubted merit, hardy, and easily cultivated.

P. Japonica multiplex (*Erroneously Amygdalus pumila*). *Double Dwarf Rose Almond.* A popular little shrub, with a great profusion of charming double rose-colored flowers, early in May. It requires good soil and careful culture to ensure success.

P. pissardii. *Purple-Leaved Plum.* One of the most valuable small trees or large shrubs with purple foliage. The leaves as well as the young shoots are a rich tint of reddish purple, which they retain most of the season. Hardy and a fine grower.

P. sinensis fl. pl. (*Erroneously Amygdalus nana fl. pl.*). *Double Dwarf White Almond.* Similar to the first named, but with perfectly double snow-white flowers in May. Although small, with slender erect shoots, it is still a very conspicuous object in a collection.

P. triloba. *Double-Flowering Plum.* A comparatively recent introduction from China, with pretty, semi-double, pink flowers so closely set along the branches as to resemble a beautiful spike. It is quite hardy and readily grown.

RHODOTYPOS

A small genus of shrubs introduced from China to Japan, thence to this country. In general appearance the flowers resemble those of the *Kerria* or *Corchorus*, but the habit of the plant is quite distinct. It is entirely hardy and a rapid grower.

R. kerrioides. *White Kerria.* This shrub is yet quite rare in collections, but is of much merit. The flowers are pure white and make their appearance late in summer. Growth upright and vigorous, with dark green leaves.

RHUS. Sumach

The arborescent species will be found under the heading of *Deciduous Trees*, but the following are mere shrubs, with decided claims for landscape adornment. The autumnal colors are really gorgeous tints of crimson and scarlet. The gay leaves glisten as if varnished, making their colors seem all the brighter. Hardy and of the very easiest culture in any soil or section.

R. copallina. *Mountain Sumach.* A good species, with dark green, glabrous leaves. It is generally found growing in dry soil, and is a native of all the eastern United States. The branches and stalks are downy, and the leaf stems are margined with wings.

R. glabra. *Common Sumach.* Although so plentiful in some districts as to be almost a pest, yet its many excellent properties appeal to the modern landscape architect. The foliage in autumn is a brilliant crimson, and the ovoid terminal panicles of fruit are bright purple.

var. laciniata. *Cut-Leaved Sumach.* A well-defined form of the above, having its leaves deeply and numerous divided into fine, shred-like segments, so as to resemble the fronds of some delicate fern. The foliage changes in autumn to bright crimson.



Spiraea Anthony Waterer. (See opposite page.)

RIBES. Currant

A group of deciduous shrubs highly valued for their fruit, although there are a few species of decided beauty and in request for ornamental grounds. Natives of the north temperate zone, and of easy cultivation in most soils.

R. aureum. *Missouri Currant.* Has been long in cultivation and is greatly esteemed for the delightful, spicy fragrance of its rich, golden yellow flowers. The fruit is black and edible.

R. sanguineum. *Red-Flowering Currant.* A distinct native species, bearing a profusion of racemes of rich, rosy red flowers in early spring, when it is exceedingly attractive.

ROBINIA. Locust

This small genus of native trees and shrubs is mentioned in the list of Deciduous Trees. The following species is too dwarf for that division of our Catalogue.

R. hispida. *Rose Acacia.* This very beautiful shrub is from the mountains of Virginia, North Carolina, etc., but is entirely hardy here. It is prized for its numerous racemes of pinkish or purple flowers, and is highly attractive when planted in large masses. The long, graceful flower-racemes are quite fragrant; the pinnate leaves are long and graceful. It forms a bushy shrub several feet in height, with serrate, lobed leaves.

RUBUS. Bramble

Perennial herbs and shrubby plants, some of which, as the Blackberry and Raspberry, are among our most valued small fruits. The flowers are large and showy, pure white in color, except in the following species.

R. odoratus. *Purple-Flowering Raspberry.* An erect, branching native shrub, with large, lobed, pubescent leaves, and numerous terminal flowers of a purplish tint. It is a northern species, generally found in rocky woods.

SAMBUCUS. Elder

A genus of large shrubs of the easiest cultivation, attractive both in flower and fruit. On the border of woods or rocky hillsides they show to great advantage, especially when in full bloom.

S. Canadensis. *American Elder.* Although a common wayside shrub, it is well deserving of a place in the larger cultivated plantations. The great cymes of snow-white flowers are exceedingly showy and the autumn display of deep purplish fruit is likewise very attractive.

S. nigra aurea. *Golden Elder.* This is a very attractive form of the Common European Elder, with bright yellow leaves. It usually stands the sun's rays with very little scorching and is valued for brightening up groups of dark green.

S. pubens. *Red-Berried Elder.* A native shrub, found mostly in rocky places. It has long cymes of pure white flowers, followed by large clusters of bright scarlet fruit. A pretty shrub, with pubescent leaves and quite hardy.

SPIRÆA. Meadow Sweet

A large genus of hardy shrubs and perennial plants, the greater portion being well adapted for ornamental gardening. They are indispensable to the landscape architect, owing to the diversity of form, foliage and flowers in the various kinds.

S. arguta. One of the newer introductions from Japan (?) which promises to be among the finest species belonging to this interesting group. It resembles somewhat *S. Thunbergi*, but is of even more slender habit. During the flowering season it is a perfect mass of snow-white bloom on long, pendent branchlets.

S. ariaefolia. A very pretty species from the Pacific coast. Of medium size and compact habit, with slender branches and a profusion of white flowers in early summer. The leaves are very numerous, lobed, toothed and densely covered with soft hairs beneath.

SPIRAEA Billardi. *Billard's Spiraea*. A medium-sized shrub, producing spiked panicles of bright rose-colored flowers in July. It is a free grower, entirely hardy and a pretty contrast to the white-flowered species.

S. Bumaldi. A comparatively new *Spiraea*, dwarf in habit, that begins to flower in June and continues until frost. Its rosy pink flowers are arranged in flat corymbs. The foliage is frequently splashed with yellowish white markings.

var. "Anthony Waterer." Introduced by the Knapp Hill Nursery, Woking, England. It is a sport from the preceding, and has beautiful rich crimson flowers. The bloom is continuous throughout the season. One of the most important additions to our list of hardy *Spiræas*.

S. Japonica (Syn., *S. callosa*). *Fortune's Spiraea*. A medium-sized shrub from Nepal and Japan, with foliage in the way of our *S. salicifolia*, but with flat umbels of bright pink flowers. It is entirely hardy, a free grower and profuse bloomer. Almost universally listed as *S. callosa*.

var. alba. *Dwarf White Spiraea*. Although but a form of the above, it is very distinct and valuable. Quite dwarf and dense in habit, bearing a plentiful display of white corymbs of flowers.

var. rosea superba. Differs from the species in the tint of its flowers, which are a charming shade of bright rose color, and produced abundantly by mid-summer. It is also more dwarf in habit than its parent.

S. prunifolia. *Plum-Leaved Spiraea*. A tall, erect-growing shrub, with lanceolate leaves, and a great profusion of small, very double white flowers before the foliage in early spring. The bloom extends the entire length of the branches, hence the common title of "Bridal Wreath."

S. Reevesii (Syn., *S. lanceolata*). *Reeves' Spiraea*. A beautiful species from China, entirely hardy in the middle states. It is an enormous bloomer, the flowers being arranged in cymes of pure white, until the branches bend over with the weight of the inflorescence.

var. fl. pl. *Double-Flowering Reeves' Spiraea*. Differs only from the preceding in the double character of the flowers, which remind one of miniature roses. It is a charming plant when in bloom and always forms a conspicuous object on the lawn.

S. salicifolia. *Willow-Leaved Spiraea*. A free-growing native species of medium size, with crowded panicles of white flowers in July. It is mostly found growing in wet grounds but will succeed almost anywhere. Sometimes known as Common Meadow Sweet.

S. Thunbergi. *Thunberg's Spiraea*. One of the choicest species in our entire collection. It is a native of China, but introduced from Japanese gardens. A medium-sized bush, with numerous slender branches, narrow linear leaves, and a great profusion of small snow-white flowers. Excellent for forcing in pots.

S. tomentosa. *Hardhack*. A common native species in the New England states, with the lower surface of the leaves very woolly. Flowers in short racemes, crowded, bright rose color, appearing in July. Strictly hardy.

SPIRAEA tomentosa, var. alba. *White-Flowering Hardhack*. This is a newly introduced variety of the above, differing only in the color of its bloom, which in this is pure white, very conspicuous, and decidedly showy. It has proven one of the best novelties of late years.

S. trilobata. This elegant shrub is entitled to almost unlimited praise. It has no defects but appears perfect in every feature. Of medium height, entirely hardy, a vigorous grower, with an abundance of lovely pure white flowers.

var. Van. Houttei. *Van Houtte's Spiraea*. This is perhaps the most popular *Spiraea* at the present time. It closely resembles the above, but is perhaps more branching and drooping in character. Flowers pure white, profuse, and exceedingly beautiful.

S. ulmifolia. *Elm-Leaved Spiraea*. When in bloom this handsome species is distinct from any other. The foliage is lanceolate and sharply serrate. Flowers very numerous in roundish corymbs; the multitude of prominent stamens imparts a fringe-like character.

STAPHYLEA. Bladder-Nut

A small genus of deciduous shrubs, all of which are hardy, with tri-foliate leaves. They bloom in drooping racemes or panicles of white flowers, followed by greenish capsules. They are generally large shrubs, and are quite ornamental for lawns.

S. Bumalda. A very rare shrub in our collections, but entitled to more notice than it has heretofore received. Leaves obovate, pointed, glaucous, bright green above, rather paler beneath. Flowers pure white, pendent, followed by two-celled capsules.

S. pinnata. *European Bladder-Nut*. The common species of Europe. Large, with pinnate, glabrous leaves and drooping racemes of white flowers. Of luxuriant growth in good soil. A desirable shrub for large plantations.

S. trifolia. *American Bladder-Nut*. A native species forming a large shrub, with smooth, striped bark. Leaves in threes, glabrous, ovate or oval, and sharply serrate. Flowers in long, pendent racemes, bell-shaped, pure white. Odd and always attractive.



Spiraea trilobata, var. *Van Houttei*.

STEPHANANDRA

A small genus, of recent introduction, which has proved entirely reliable and satisfactory in our collections. The deeply lobed leaves impart a fern-like appearance to the shrubs.

S. flexuosa. A medium-sized shrub of very compact growth, with numerous slender branches densely clothed with leaves. The latter are deep green, very conspicuous and deeply cut. Flowers in clusters, small, greenish white.

STUARTIA

A small genus of shrubs, native to the United States and Japan, noted for their large showy flowers. They are closely related to the tea plant of commerce, belonging to the same natural order. A fibrous, loamy soil should be given them.

S. pentagyna. *Mountain Stuartia.* A superb flowering shrub of rather large size, with ovate or oval leaves, pubescent beneath. The flowers are large, rich creamy white, very conspicuous and produced singly over the plant. Quite rare in cultivation.

STYRAX

Quite a large family of beautiful trees and shrubs, with elegant, small, drooping bell-shaped flowers, arranged in leafy racemes. The species in cultivation with us require a good light soil, and are quite hardy.

S. Japonica. *Japan Styrax.* A superb, rare shrub, or small tree, from the mountains of Japan. It is very satisfactory with us, producing, in June a multitude of charming little bell-shaped flowers that are white and deliciously fragrant. Forms a beautiful, globular specimen.

SYMPHORICARPUS. Snowberry

Native shrubs of small size. Compact in form, with numerous slender twiggy branches. Leaves oval, downy beneath, with clusters of whitish flowers followed by numerous clusters of white or red berries. The latter are very ornamental.

S. racemosus. *Snowberry.* This resident of old-time gardens is yet one of the most valued shrubs for its clusters of immaculate white berries in autumn, which remain on the plant for a long time. It shows to great advantage when planted in large masses.

S. Symphoricarpos (Syn., *S. vulgaris*). *Indian Currant, Coral Berry.* A small native shrub, with dense clusters of pinkish flowers, succeeded by numerous purplish red, roundish berries. This is an exceedingly ornamental plant, especially when grown in groups or belts.

var. variegata. *Variiegated-Leaved Indian Currant.* A sport from the above, differing only in having most of the foliage plentifully sprinkled with yellowish markings. It is quite distinct and reliable.

SYRINGA. Lilac

A well-known genus of hardy shrubs, highly valued for the beauty and fragrance of their flowers, which are in terminal panicles, and very freely produced. We have made a specialty of this elegant family, and now offer young plants of all the new varieties of merit.

S. Amurensis (Syn., *S. Pekinensis, S. ligustrina*). *Privet-Leaved Lilac.* A native of Japan and Manchuria but entirely reliable here. It makes a tall, spreading shrub, with long, slender branches and ovate, pale green leaves. The

SYRINGA, continued

flowers are in large panicles, white, and open at midsummer, not unlike huge trusses of Privet. Very desirable and pretty.

var. pendula. *Weeping Lilac.* A distinct form of the above, with a decided drooping character. When grafted high, the long, slender branches are exceedingly picturesque and beautiful. Flowers as in the species.

S. Chinensis (Syn., *S. Rothomagensis*). *Rouen Lilac.* This tall, erect shrub is deserving of unlimited praise, being entirely hardy, a free grower, and superb in bloom. Its immense panicles are of a rich tint of purple or dark lilac and very fragrant. Probably a hybrid between *S. Persica* and *S. vulgaris*.

var. Metensis. An elegant Lilac, with a similar habit to the species, but producing enormous trusses of a pale reddish lilac color. When in full bloom it is remarkably conspicuous in a collection.

var. Saugena. *Red Rouen Lilac.* A beautiful and desirable variety, resembling the above, but with the bloom reddish lilac in tint. It is also a free grower and bloomer.

S. Emodi. A very distinct Chinese Lilac, with large yellowish green leaves, glaucous beneath, and with large panicles of showy, rich purplish flowers. A desirable species.

S. Japonica. *Japan Lilac.* Found on the mountains of Japan, where it attains a height of 25 or 30 feet, with a stem 12 inches in diameter. Leaves large, deep glossy green; large clusters of elegant fragrant flowers appear late in the season. Quite hardy here.

S. Josikea. *Chionanthus-Leaved Lilac.* A conspicuous species of large size, from Transylvania. Leaves large, deep green, shining and wrinkled, whitish beneath. Of upright growth, with spreading branches and purplish bark. Flowers purple.

S. Persica. *Persian Lilac.* A large shrub, with slender branches and large panicles of purplish lilac flowers. It is one of the most desirable species of the family. Quite fragrant, entirely hardy and attractive. Blooms in June.

var. alba. *White Persian Lilac.* Although not pure white in tint, this handsome form produces an abundance of very pale lilac bloom, and is quite distinct from the species. It is a delightful flower for cutting, and makes an attractive specimen on the lawn.

var. laciniata. *Cut-Leaved Lilac.* This resembles the species in all but the outline of the foliage, which is deeply lacinated and fern-like in character. It is a very choice variety, and exceedingly attractive at any season, but especially so when in full bloom.

S. villosa. *Hairy-Leaved Lilac.* One of the newer species quite distinct from the older Lilacs. Foliage large, not unlike that of the White Fringe. Flowers later than the others, rosy pink, and in large panicles. A very desirable species.

S. vulgaris. *Common Lilac.* This old-time hardy shrub is yet among our popular deciduous plants. It blooms freely and is entirely reliable. Flowers bluish purple and in fairly large panicles. Good for forcing.

var. alba. *Common White Lilac.* The old-fashioned white-flowering variety, still in request by florists for its large, fragrant trusses of immaculate bloom.

var. Ambroise Verschaffelt. A splendid new variety; a good grower and quite distinct. The panicles are large and a very pretty shade of pale pink.

SYRINGA vulgaris, var.

Amethyste. A fine novelty, with numerous large panicles of purplish lilac flowers turning blue with age. A profuse bloomer.

var. Beranger. Panicles of fine size, with beautiful purplish lilac flowers; vigorous and one of the most desirable.

var. Bertha Dammann. A very free-blooming variety, with large panicles of snow-white single flowers. One of the best.

var. Charles X. An old Lilac, but still in demand for its abundance of large panicles of reddish purple flowers.

var. coerulea superba. Produces large trusses of clear blue single flowers. An excellent variety; quite distinct.

var. flore pleno. An older variety, with small, very double, bright lilac flowers, in fair-sized panicles. Excellent.

var. Geant des Batailles. A vigorous grower, with fine large foliage and superb trusses of bright blue, single flowers.

var. Gloire de Croncels. Beautiful large panicles of reddish lilac flowers, that are bright red before expanding.

var. Gloire de Lorraine. The individual flowers are very large, single, reddish in bud but a handsome lilac tint when open. Truss large.

var. Goliath. Panicle and flower quite large, and of a conspicuous reddish blue tint. A strong grower and free bloomer.

var. hyacinthaeiflora. Beautiful large trusses of quite double, lilac-rose colored flowers, with a reddish tint in bud. Among the very earliest to bloom in spring.

var. Jean Bart. A large and compact panicle of double claret-rose flowers, dark red in the bud. A strikingly pretty Lilac.

var. Langius. A late-blooming variety with large trusses of a delicate shade of lilac, tinted with fawn color. An excellent Lilac.

var. La Tour d'Auvergne. One of the newer double varieties of free-blooming habit. Pale, rosy lilac flowers, of large size and fine form.

var. Lavanensis. A beautiful, vigorous variety, with large panicles of elegant delicate rosy lilac flowers. Very prolific.

var. Le Gaulois. This elegant novelty blooms in immense trusses of large, double, bright red flowers. Panicles very compact.

var. Leon Simon. A splendid novelty, producing clusters of the largest size. Very compact, perfectly double and of a bright bluish color, with the buds a light coral tint.



Syringa vulgaris, var. Bertha Dammann.

SYRINGA vulgaris, var. Mme. Abel Chatenay. A superb novelty, with pure, milk-white flowers; very double, arranged in handsome compact panicles. A free bloomer.

var. Mme. Lemoine. Decidedly one of the best of the new varieties. Very large panicles of double pure white flowers. A prolific bloomer and good grower.

var. Mme. Moser. A vigorous grower, with large foliage. Fine trusses of pure white single flowers. Valuable for florists' use.

var. Mathieu de Dombasle. One of the best varieties. Large trusses of double lilac, with a rich, reddish tinge.

var. Maxime Cornu. One of the newer double-flowering Lilacs; of a pinkish rose color. Very attractive and desirable.

var. Monsieur Lepage. An elegant new variety, with very large panicles of lilac-blue flowers, whitish outside. Very distinct.

var. nigricans. Large and compact trusses of very deep reddish lilac. Foliage deep green. Growth vigorous.

var. Pierre Joigneaux. Another pretty new Lilac, with very double, reddish purple flowers, in large trusses. Excellent.

var. Prof. Stockhardt. Rather a dwarf grower, with large trusses of lavender-colored flowers. Very conspicuous and fine.

var. pyramidalis. An exceedingly showy and distinct form, with large, full, semi-double flowers of a pretty shade of rose color.



Viburnum plicatum. (See opposite page.)

SYRINGA vulgaris, var. renoncule. A short, compact truss of exceedingly double pale reddish lilac flowers, that are very fragrant.

var. rosea grandiflora. Large panicles of deep rosy purple flowers. Free-blooming and an excellent old variety.

var. Rubra de Marly. Similar in growth to the Common Lilac, with purplish flowers. Used for forcing by the Parisian florists.

var. Senateur Volland. A beautiful new variety, with double flowers of a bright rosy red color, in large panicles.

var. Souvenir de L. Spaeth. One of the most elegant and striking Lilacs known. The immense panicles are very compact, and the florets very large, deep purplish red. It has no superior in its class.

var. Valletiana. An excellent variety, blooming profusely in large panicles of lavender or pale lilac.

var. Verschaffelti. One of the first to be introduced and still retained for its large, fine trusses of pale lilac.

var. Ville de Troyes. An excellent new variety, with large trusses of rosy or reddish lilac color. A vigorous grower.

var. Virginale. A robust-growing, free-blooming Lilac, with fine trusses of pure white flowers. An excellent variety.

var. Virginite. This beautiful new form produces fine panicles of double flowers of the same tint as the "Souvenir de la Malmaison" rose.

TAMARIX

Tall shrubs, natives of Europe, Asia and Africa, but generally hardy with us. Excellent for planting in the vicinity of the seacoast. Growth generally upright, with small bright green leaves and panicles of pink or rose-colored flowers.

T. Gallica. French Tamarix. In good soil this shrub will attain a large size, and present an attractive appearance, because of its heath-like foliage and pretty pink flowers that open freely in May.

T. tetrandra. A distinct and exceedingly beautiful large shrub or small tree. It is a strictly erect grower, with charming light feathery foliage. The shoots are terminated by loose, delicate panicles of bright rosy pink flowers during summer.

VIBURNUM. Haw, Sloe, Etc.

Large shrubs or small trees found almost all over the world. Flowers mostly in compound cymes, the outer row of inflorescence in some species being sterile. In addition to the various Snowballs, our native species are all well worthy of extensive use, the clean, healthy foliage alone recommending them to notice.

V. acerifolium. *Maple-Leaved Arrow-Wood.* A medium-sized native shrub, with smooth slender branches and ovate, pubescent leaves, 3-lobed and coarsely toothed. The cymes of white flowers are conspicuous and handsome.

V. cassinoides. *Withe Rod.* Another native shrub of medium size, with erect grayish branches, thick, ovate, shining leaves, and large cymes of small white flowers. The large, fleshy drupe is pink, changing to blue at maturity. Grows mostly in low grounds but succeeds perfectly in high locations.

V. dentatum. *Arrow-Wood.* A tall native shrub, with slender branches and smooth twigs. Leaves ovate, coarsely toothed, smooth on both sides. Clusters of fruit very dark blue, almost black. Found in moist soil but will succeed elsewhere. Grows rapidly.

V. Lantana. *Wayfaring Tree.* Native of Europe. Forms a tall shrub or low tree, with roundish, cordate leaves, covered, especially on the under side, with a mealy pubescence. Its large cymes of white flowers are succeeded by black berries. Of rapid growth.

V. Lentago. *Sweet Viburnum.* A native species, usually a large shrub, but often a small tree. Leaves ovate, glabrous on both sides; cymes of flowers large, pure white and showy, followed by clusters of round bluish black, sweet, edible fruit.

V. macrocephalum. *Large-Headed Viburnum.* This grand shrub is a sterile form of some Asiatic species, with immense round heads of flowers, snow-white and exceedingly attractive. It is unusually difficult to propagate and consequently is still very rare.

V. molle. *Soft-Leaved Arrow-Wood.* A native shrub of large size, with densely pubescent ovate leaves, and cymes of pure white flowers succeeded by clusters of blue fruit. Found near the Atlantic coast. A pretty species.

VIBURNUM Opulus. Cranberry Tree.

A large native shrub, with ascending, smooth branches and broadly ovate, smooth, 3-lobed, coarsely dentate leaves. The outer flowers in the cyme are large, conspicuous and pure white. The fruit is very ornamental, roundish, bright red, translucent and acid.

var. sterilis. Snowball. A form of the preceding, with large globular heads of pure white sterile flowers, hence the term of Common Snowball. It is an old-fashioned shrub, long in cultivation and greatly esteemed by our gardeners.

V. prunifolium. Black Haw, Sloe. A large native shrub or small tree, with ovate, smooth leaves, cymes of flowers very attractive, snow-white, appearing in May. The compressed bluish black drupes are sweet and edible.

V. tomentosum. Hairy Japan Viburnum. Although its sterile form has been in cultivation for several years, this, the parent, is scarce in our collections. It forms a large shrub, with beautiful cymes of flowers, the outer inflorescence being sterile and very showy. A very valuable plant.

var. plicatum. Japan Snowball. A popular and exceedingly attractive variety of the above, producing numerous globular heads of snow-white sterile flowers. The dark green, tomentose foliage affords a pretty background for the bloom.

XANTHOCERAS

A small genus from the north of China, belonging to the Sapindacea or Soapberry family, with pinnate foliage and white flowers in terminal clusters. Hardy with us and rare.

X. sorbifolia. A beautiful small tree or large shrub, with foliage resembling the Mountain Ash. The clusters of flowers are especially attractive.

XOLISMA

A small genus of shrubs, natives of the eastern United States, Mexico and West Indies. They were



Xanthoceras sorbifolia.

XOLISMA, continued.

formerly listed with the Andromedas, and resemble them in a general way, requiring the same treatment.

X. ligustrina. Privet Andromeda. A medium-sized shrub, much branched, with many-flowered racemes of round, white, bell-shaped bloom.

STANDARD SHRUBS

The practice of training shrubs in tree form is comparatively new, and has proved unsurpassed for the pleasing effect produced in formal gardening work. As centers for beds, grouping, etc., or for straight lines bordering walks, they are especially appropriate. A collection of assorted colors of the *Althæa* will prove much more reliable and satisfactory than Tree Roses, and equally attractive. The plants we offer have been trained with great care to secure perfect specimens. They are not simply chance shrubs with the lower branches pruned off. We regard our collection as the most extensive and satisfactory of any in this country.

DEUTZIA, candidissima and **Pride of Rochester.**

DIERVILLA candida.

EXOCHORDA grandiflora.

FORSYTHIA Fortunei.

HIBISCUS Syriacus (*Althæa*), **Amaranthus, Bicolor**, **Comte des Flandres**, **Carnea plena**, **Duchesse de Brabant**, **Elegantissima**, **Jeanne d' Arc**, **Paeoniiflora**, **ranunculiflora**, **sanguinea**, **Violet Clair** and **Variegata.**

KRAUNHIA frutescens (Syn., *Wistaria frutescens*).

LIGUSTRUM ovalifolium.

OPULASTER opulifolius (Syn., *Spiræa opulifolia*).

PHILADELPHUS, cordata, grandiflora, nivalis fl. pl. and sanguinea.

SPIRAEAS, prunifolia and **Reevesi.**

STAPHYLEA Bumalda.

STYRAX Japonica.

VIBURNUM, opulis sterilis (*Common Snowball*), and

V. tomentosum plicatum (*Japan Snowball*).



A Border of Rhododendrons

EVERGREEN SHRUBS

Many of this class of Shrubs are only partially hardy at the north, and require a somewhat sheltered position from the severe northwest winds in winter. They form beautiful clumps on the lawn, and are also prized as single specimens.

AUCUBA. Gold Dust Tree

Probably a monotypic genus from Japan, where it forms a large shrub, with branches verticillate, and laurel-like foliage. Formerly grown in cool green-houses, although it succeeds in the open air if planted in the shade.

A. Japonica. *Japan Aucuba.* The beauty of this Evergreen consists in its handsome leaves, plentifully sprinkled with yellow dots. It produces its red berries quite freely in Japan, but does not fruit with us.

BERBERIS. Mahonia.

Although usually classed as Mahonia, the distinction between the Evergreen and deciduous forms is insufficient for the separation. The Evergreen species are fairly hardy in the middle states, although the foliage is frequently injured.

B. aquifolium (Syn., *Mahonia aquifolium*). A small, spreading shrub, with smooth, spiny, holly-like leaves, and racemes of rich golden yellow flowers, succeeded by roundish purple berries in autumn. Common throughout the Rocky Mountain region.

BUXUS. Box

A small genus of Evergreens, the several varieties ranging from a low bush to a medium-sized tree. They are natives of Europe or Asia and readily cultivated, although some are occasionally injured by se-

vere winters. No genera of shrubs admits of close pruning so readily as this; indeed to prune them is a necessity.

B. Chinensis. *Chinese Box.* It is quite doubtful whether this form is entitled to a specific distinction, although differing from the sorts below in several essential points. However, the several varieties are very handsome and attractive on the lawn. The following are among the most useful:

var. angustifolia. *Narrow-Leaved Chinese Box.*

var. latifolia. *Broad-Leaved Chinese Box.*

var. longifolia. *Long-Leaved Chinese Box.*

var. rotundifolia. *Round-Leaved Chinese Box.*

B. sempervirens. *Common Tree Box.* A very large shrub, or small tree, with thick, leathery, dark shining green leaves. Naturally it is somewhat spreading in habit, but bears shearing with impunity. Both the species and its numerous varieties are of the greatest importance in gardening.

var. argentea. *Silver-Leaved Box.* A very distinct form, with the foliage profusely marked with whitish spots and irregular lines. It is a compact, upright grower, with ovate leaves. Hardy and fine.

var. aurea. *Golden-Leaved Box.* Similar to the Common Tree Box in every feature except the yellow stripes and blotches conspicuously prominent on the foliage of this pretty variety. It makes a noticeable contrast in a group of green-leaved forms.

BUXUS sempervirens, var. myrtifolia. *Myrtle-Leaved Box.* This very distinct variety is quite compact in growth and forms a dense, pyramidal shrub. The multiplicity of small, obovate leaves is very attractive. A useful garden plant.

var. suffruticosa. *Dwarf Box.* This well-known and highly appreciated old-fashioned shrub is of the greatest importance for edging walks, etc., in symmetrical gardening, as no other species is so well adapted for that purpose.

var. thymifolia. *Thyme-Leaved Box.* A very compact, dwarf-growing variety, with remarkably small, lanceolate leaves. Admirably suited for using with the above in ornamental gardening work. It is somewhat slow in growth, but a healthy plant.

CRATÆGUS. Thorn

The arborescent members of this genus will be found under the heading of Deciduous Trees, but the following species is conspicuously an Evergreen shrub, and one which is greatly appreciated wherever known.

C. pyracantha. *Fiery Thorn.* A low, straggling shrub, growing to advantage among rocks and over stone walls. It has smooth, small evergreen leaves and round, bright scarlet fruit, that remains on the plant during winter. Prefers a dry soil.

EUONYMUS. Spindle Tree.

In addition to the species of this genus described under the heading of Deciduous Shrubs, there are a few important plants belonging to this Evergreen division. With a slight protection they will succeed in the open air in the middle states.

E. japonicus. *Japan Euonymus.* This is usually a large shrub, specially adapted to the vicinity of the seacoast, and in sheltered spots inland. It has large, thick, leathery, shining foliage, and is an ornamental plant of much value.

var. argenteus. *Silvery Variegated Euonymus.* In this exceptionally distinct form, the usual green foliage is plentifully sprinkled with pure white markings. It is a fine shrub for producing striking contrasts.

var. "Duc d' Anjou." This pretty new French variety is of quite rapid growth. The foliage is curiously marked and shaded with a lighter tint of green. It is very attractive in a group and reasonably hardy in a sheltered location.

var. marginatus. *Silver-Margined Euonymus.* This unique sport from the type has a distinct stripe around the margins of the leaves; at first it is of a yellowish tint, but gradually changes to a pure white in the adult leaves.

var. radicans. *Trailing Euonymus.* A very remarkable variation from the above. The vine-like character of growth and the evergreen foliage adapts it for many useful purposes. It has been used to advantage as a climber on the trunks of trees.

var. variegatus. *Variegated Trailing Euonymus.* A valuable variation from the above, with very pronounced white markings on the foliage. It is adapted to a variety of useful purposes in gardening, especially for vases, etc.

KALMIA. American Laurel

A small genus of North American Evergreen shrubs, with leathery leaves and attractive flowers. They require moist, shaded localities, and well-drained soil.

K. latifolia. *Mountain Laurel, Calico-Bush.* One of the most valuable shrubs for massing in woods and shady spots. It forms a medium-sized or large Evergreen, with smooth, oval, bright green leaves. The pink and white flowers are borne in corymbs.

RHODODENDRON

Rose Bay

This superb genus, which comprises a great diversity of named varieties, is, without doubt, the most beautiful and attractive group in the entire list of ornamental shrubs. At maturity they form tall plants with large, leathery leaves. Flowers in large heads of white, rose, red and purple, with all the intermediate tints. To grow these plants successfully, it is advisable to secure a partially shaded location, with a light, fibrous soil; then, with a frequent copious watering, they should thrive and bloom freely. Lime in the soil is a positive injury to them; after blooming all seed-pods must be removed to insure fine flowers the next year.

R. Catawbiense. *Carolina Rose Bay.* This parent of most of the hardy hybrid varieties is found on mountain ranges from Virginia southward. Flowers violet-purple in large heads. When grown in masses they make a magnificent show.

R. maximum. *Great Laurel, Rose Bay.* A large shrub or small tree, with deep green leaves and large trusses of elegant rose-colored to whitish flowers, with yellowish spotted throats. Found along the mountain ranges of the northern Atlantic states, where it forms immense masses in some localities, and always proves attractive.

HYBRID VARIETIES

The following will all prove satisfactory and hardy in the northern states, and are superior to the many doubtful forms that are injured by the severity of our winters. These are first-class plants, with balls of peaty earth attached to the roots, and mostly supplied with flower-buds for immediate effect.

Album grandiflorum. Blush, changing to white. Large truss and vigorous habit. Fine.

Atrosanguineum. Intense blood-red. One of the hardest and best of its color.

Caractacus. Rich purplish crimson; splendid truss. very desirable.

Catawbiense album. Pure white. Quite hardy and satisfactory.

Charles Dickens. Dark scarlet. Habit and foliage fine. Very reliable.

Delicatissimum. White, faintly edged with blush. Beautiful.

Everestianum. Rosy lilac, spotted with red, prettily fringed. Hardy and reliable.

H. W. Sargent. Bright crimson; enormous trusses. Very distinct and fine.

Lady Armstrong. Pale rose, very much spotted. A beautiful variety.

Lee's Purple. Rich dark purple in fine clusters. A conspicuous flower.

Purpureum grandiflorum. Very fine purple; large flower and truss.

Roseum elegans. An elegant bright rose-color. Very popular and beautiful.

Also other beautiful varieties.

YUCCA. Spanish Bayonet

A genus of mostly tender evergreen plants, with numerous rigid, spine-pointed leaves, and tall, showy panicles of white, cup-shaped flowers. The following species is entirely hardy at the north, and useful in ornamental gardening,

Y. filamentosa. *Adam's Needle.* Stem short and leafy, with green or glaucous, long-linear leaves, having numerous thread-like filaments along the margins. The tall flower-stem lifts a panicle of creamy white flowers. It is very hardy and fine.

VINES

THE following Vines may be divided into four classes, according to their several methods of climbing: (1) Those clinging by means of disk-tipped tendrils, as the Virginia Creeper. (2) Those with aerial roots which fasten to walls, etc., as the English Ivy. (3) Those attaching themselves to surrounding objects by means of a twining stem, as the Celastrus. (4) Vines with leaf-stems or petioles that clasp their support, as the Clematis.

Climbing plants are decidedly useful in our gardening operations; some species for showy flowers, others for beauty of foliage. They are of easy cultivation, but require attention in the matter of training.

ACTINIDIA

These woody climbers are of recent introduction, but will eventually be classed among our hardiest and most valuable vines. They are natives of the Himalayas and eastern Asia, where they flourish with remarkable vigor.

A. polygama. This is probably the most desirable species for our collections. It is a robust climber, with elliptical leaves which assume a pale yellow tint at the ends of the branches. The fruit is 1½ inches long, canary yellow, and translucent.

AKEBIA

A small genus of Asiatic vines, only one of which is of sufficient importance for ornamental use. The curious, fragrant flowers are composed of three thick fleshy sepals. They make a handsome show when in full bloom. Hardy and desirable.

A. quinata. Now fully established as one of our most desirable climbers. It is very graceful in habit, with attractive foliage, and dull, reddish purple fragrant flowers. The vine is quite vigorous, and the branches hang down in graceful festoons.

AMPELOPSIS. See *Parthenocissus*

ARISTOLOCHIA. Pipe Vine

A curious family of plants, some of which are simply low herbs, while others are robust twining vines, with large, coarse leaves and unique purplish flowers. They are natives of both tropical and temperate climates, but the one listed below is quite hardy.

A. macrophylla (Syn., *A. siphon*). *Dutchman's Pipe*. A native of the southern United States. One of our most vigorous twining vines, with large, round, kidney-shaped leaves, and very curious, brownish purple flowers, shaped similar to a Dutch pipe; hence the name.

CELASTRUS. Staff Tree

Mostly climbing shrubs, of which but one is a native of North America. They are mainly valuable for their attractive fruits, in the form of bright capsules, which, in splitting open, disclose the scarlet seed-coverings. Strong growers, with bright foliage.

C. articulatus. *Japan Celastrus*. A native of Japan, where it is very abundant on the mountains, and where the leafless branches covered with bright fruit are sold in the towns for house decoration. It is a strong, healthy grower and very ornamental. Rare.

C. scandens. *Climbing Bittersweet*. A native, twining, woody vine, of vigorous growth. It has smooth, light green leaves, with bright orange capsules that open in autumn and reveal the scarlet-coated seeds. A popular climber, bright with fruit until late in winter.

CLEMATIS. Virgin's Bower

This is one of the most useful genera of flowers for ornamenting trellises, verandas, etc. We know of none that can compare in beauty with the new hybrid varieties recently introduced, while the light, feathery foliage of the small-flowered species and their great profusion of beautiful bloom entitles them to precedence.

Sec. I. Small-Flowering Clematis

C. crispa. *Marsh Clematis*. A beautiful native species, with nodding, solitary, bell-shaped flowers, of a bluish purple tint. It is found in low, moist situations, but succeeds well on high ground. Blooms in May and June.

C. flammula. *Fragrant Virgin's Bower*. An old, well-known European species, long in cultivation with us. It is vigorous, with an abundance of small white flowers, exhaling a strong honeyed fragrance not unlike that of the Common Hawthorn.

C. paniculata. *New Japan Clematis*. This recently introduced species sprang at once into notoriety on account of the wonderful masses of pure white, delightfully fragrant flowers it produces. The vine is very vigorous and entirely hardy. Indispensable.

C. Viorna coccinea. *Red-Flowering Clematis*. A pretty vine, with elegant little bell-shaped flowers of bright scarlet, with distinct yellow tips. It is an attractive and graceful vine, quite a free bloomer and reliable with us.

C. Virginiana. *Native Virgin's Bower*. An exceedingly vigorous vine that blooms in August. The large, leafy panicles of pure white flowers are agreeably fragrant and quite showy. One of the most desirable of our hardy native vines.

C. vitalba. *Traveler's Joy*. Native of Europe, closely resembling our own native species above, but even more vigorous. It is a very woody vine, attaining a height of 25 or 30 feet, and has large panicles of greenish white, almond-scented flowers.

C. viticella. *Virgin's-Bower Clematis*. A native of the south of Europe but hardy here. Only a moderate grower, with numerous blue or violet-colored flowers on long, nodding stems, produced all summer. It is very desirable for covering trellises.

Sec. II. Large-Flowering Clematis

It is a difficult task to make a popular list of these elegant hybrid varieties, when all are so attractive. The following comprise the principal colors and have good hardy constitutions, so that they may be depended upon.

Alexandra. One of the Jackmanni group, with large, pale reddish violet flowers. Very desirable.

Fair Rosamond. A free-growing, handsome variety; bluish-white, very large flowers.

Gem. A fine large hybrid, with deep lavender or grayish blue flowers. Blooms freely.

LARGE-FLOWERING CLEMATIS, continued

- Henryi.** A grand Clematis. Its large creamy white flowers have 6 to 8 sepals. Popular.
- Jackmanni.** The most reliable of all the large-flowering varieties. Flowers large, of an intense violet-purple color.
- John Gould Veitch.** A fine, showy variety, with double, blue flowers. Of Japanese origin.
- Lanuginosa.** A splendid Japanese species, with very large pale lavender or bluish flowers.
- Lawsoniana.** A hybrid from above; very large, beautiful rosy purple flowers.
- Lucie Lemoine.** Of French origin. Flowers very large, double, pure white.
- Standishi.** A handsome, spring-blooming Clematis from Japan. Color mauve-purple.
- Star of India.** A free-blooming variety, with reddish plum or violet-purple flowers.
- Thomas Moore.** Vigorous; flowers large, deep, rich, puce-violet, with white stamens.

HEDERA. Ivy

After thoroughly testing a large number of varieties of Ivy in the open air, we have reduced our long list to a single one, the well-known Irish form of the English Ivy. The Ivies are mostly hardy in sheltered spots and grow freely. The evergreen leaves form the chief attraction of this old, well-known genus.

- H. Helix Canariensis.** *Irish Ivy.* A strong vigorous-growing evergreen vine, with large deep glossy green leaves. It is the most desirable and useful of the entire family.

JASMINUM. Jessamine

A large genus, mostly confined to the warmer regions of the Old World. They are either shrubs or climbing vines, with white or yellow flowers, generally quite fragrant. Some species are entirely too tender for the northern states, although a few will succeed with adequate protection.

- J. nudiflorum.** *Naked-Flowering Jessamine.* A reasonably hardy species, blooming very early in spring, in advance of the foliage. Its wealth of rich, golden yellow flowers makes it very showy. Although not a true climbing vine, it is excellent for training over trellises, etc.
- J. officinale.** *Common White Jessamine.* Only partially hardy at the north, except in warm, sheltered situations. It is a vigorous grower, with long, slender green shoots and a profusion of pure white, deliciously fragrant flowers.

KRAUNHIA. American Glycine

A small family, of which one only represents the genus in America. It has long been known and cultivated under the name of Wistaria, to which it is closely allied. A tall, vigorous vine and entirely hardy.

- K. frutescens.** (Syn., *Wistaria frutescens*). A native of the United States, mostly of the south, where it is exceedingly rampant, often reaching a height of 30 or 40 feet, with a large stem. It produces numerous dense racemes of lilac-purple flowers, making a fine show.

var. alba. *White American Wistaria.* A recent introduction and decidedly distinct from the above, while having all its good qualities. Its racemes of pure white flowers are very attractive.



Clematis Jackmanni.

LONICERA. Honeysuckle

This important ornamental genus consists of about 100 species, native of the north temperate zone. They are either shrubs or climbing vines. The former are described under the heading of Deciduous Shrubs; the latter only will be enumerated here. All hardy and valuable.

- L. brachypoda.** *Chinese Evergreen Honeysuckle.* Perhaps the most vigorous and easily grown of the genus. Unsurpassed for trailing over rocks and covering waste places. Flowers white and yellow-buff, in great profusion.

var. Halliana. *Hall's Evergreen Honeysuckle.* A very popular, strong-growing and free-blooming variety, fine for almost any purpose. It has beautiful white flowers, produced very freely and very fragrant. Subevergreen.

- L. flexuosa aurea reticulata.** *Golden-Veined Honeysuckle.* The leaves are elegantly veined and marked profusely with pure yellow, so that the plant is beautiful at all seasons. It flowers very freely. Very popular with florists for a variety of purposes. Subevergreen. An engraving from photo is shown on page 44.



An arch of Honeysuckle.

LONICERA Heckrotti. *Everblooming Honeysuckle.*

This superb plant of recent introduction is deserving of unlimited praise. Leaves smooth, glaucous beneath, with a profusion of flowers all summer and autumn, ending only with severe frost; color pinkish lilac. It is thoroughly hardy and of free growth. Probably a chance hybrid.

L. Japonica. *Evergreen Honeysuckle.* An old, reliable species of undoubted excellence. Foliage evergreen. Flowers very fragrant, red, yellow and white, produced in abundance. Grows rapidly and is quite hardy.

L. periclymenum Belgicum. *Monthly Dutch Honeysuckle.* A favorite old form of the woodbine, flowering occasionally all summer. Red and yellow, and exceedingly fragrant. Only a moderate grower, but a valuable variety.

L. sempervirens. *Red Coral Honeysuckle.* Frequently known as the "Red Trumpet." A valuable native species, long in cultivation and highly appreciated. Flowers in verticils, scarlet, trumpet-shaped. Evergreen at the south.

var. aurea. *Yellow Coral Honeysuckle.* Also listed as the "Yellow Trumpet." It is similar in growth and habit to the preceding, but has yellowish shoots and bright yellow, trumpet-shaped flowers.

LYCIUM. *Box-Thorn*

Quite an extensive genus, widely distributed over the temperate and warmer portions of the globe. They are shrubs or woody vines, frequently spiny, with greenish white or purplish flowers and ornamental berries.

L. vulgare. *Matrimony Vine.* Stems slender, trailing or erect, mostly spiny, with glabrous leaves and purplish, changing to greenish flowers. Berries attractive in autumn, round, orange-red.

PARTHENOCISSUS. *Ampelopsis*

An important family of vines, climbing by means of disk-tipped tendrils. The foliage is glossy green in summer, turning to the most brilliant tints of crimson and scarlet during the autumnal season. Panicles of dark blue or purplish berries; quite attractive.

P. heterophylla (Syn., *Ampelopsis*). *Variegated Grape.* Small, thinnish, lobed leaves, prettily striped and blotched with white. The numerous berries are porcelain-blue; conspicuous and very attractive.

P. quinquefolia (Syn., *Ampelopsis quinquefolia*). *Virginia Creeper.* A very vigorous vine, climbing to the top of the tallest tree. Leaves digitate, with usually 5 leaflets, dark green above, pale beneath, changing to deep red in autumn.

P. tricuspidata (Syn., *Ampelopsis Veitchii*). *Japan Ivy, Boston Ivy,* etc. One of the most deservedly popular vines for covering walls, masses of rocks, etc., that we possess. The 3-lobed leaves are glossy, and, during autumn, in their radiant dress of crimson, are remarkably attractive.

var. Roylei (Syn., *Ampelopsis Roylei*). *Royle's Japan Ivy.* Simply an enlarged form of the preceding species in all its various parts. It is a very strong grower and is equally as showy during the autumn months.

PASSIFLORA. *Passion-Flower*

A very extensive genus of climbing vines, mostly natives of tropical countries, with showy flowers and large berries. Some of the species are gorgeous greenhouse climbers, and adhere to their supports by tendrils.

P. incarnata. *Passion-Flower.* This herbaceous perennial, has large, 3-lobed leaves, and climbs to a height of 20 or 30 feet in a season. Flowers white, with a pink or purplish center and exceedingly ornamental. Root quite hardy.

PERIPLOCA. *Silk Vine*

A group of plants belonging to the *Asclepiadaceæ* or milkweeds, all inhabiting warm countries, although the following species is hardy here. The flowers are arranged in cymes. They are twining, shrubby plants of luxuriant growth, with the seed-vessels a mass of silky tufts.

P. Graeca. *Grecian Silk-Vine.* An introduced hardy climber, with cymes of brownish purple flowers in August. The foliage is dark green and smooth and the tufts of silky appendages to the seeds quite ornamental.

ROSA. *Rose*

The list of Climbing Roses is now quite large, so, for purposes of convenience, we have placed them under the heading of Roses.

SCHIZOPHRAGMA

A genus of climbing shrubs very closely allied to the *Hydrangea*, natives of Japan. The broad, compound cymes of white flowers are remarkably attractive, and the plants are entirely hardy and ornamental.

S. hydrangeoides. *Climbing Hydrangea.* This is a free-growing species, clinging tightly to rough surfaces and producing freely its beautiful clusters of hydrangea-like flowers; the inner ones small, the outer row large, sterile, and pure snow-white.

TECOMA. Trumpet Vine

Quite a large genus of climbing vines, mostly natives of warm regions, of both the Old World and New. They adhere to their supports by means of aerial rootlets, have compound leaves and showy orange or red trumpet-shaped flowers. They are of rapid growth and useful as ornamental plants.

T. grandiflora. *Great Trumpet-Flower.* A beautiful species from China, entirely reliable with us. The panicles of large flowers are pale orange color and very conspicuous. It is a strong grower, with bright, glossy foliage, but should have rich soil to insure success.

T. radicans. *American Trumpet-Flower.* A strong, hardy, woody vine, growing 30 to 40 feet high and of the easiest cultivation. The flowers are in corymbs, trumpet-shaped, scarlet with veins in the throat. A native of the United States, most frequent south.

VINCA. Periwinkle

A small group of trailing vines, with large solitary blue, pink or white flowers in the axils of the leaves. They are of considerable importance to the gardener, especially for cemetery planting. Adapted for growing beneath the shade of trees, etc.

V. major. *Greater Periwinkle.* The most vigorous grower of the genus; has long, slender branchlets and large foliage. The flowers are pale blue, very large and attractive. Excellent for rockeries as well as for vases, etc.

var. variegata. *Variegated Large Periwinkle.* This distinct and pretty variety is especially adapted for florists' work and is almost indispensable for vases, hanging-baskets, etc. Like the species, it is a rapid grower, with handsome, mottled leaves and large flowers.



Spray of Hall's Honeysuckle.

VINCA minor. *Lesser Periwinkle.* Much smaller in all its parts than the preceding species, although a rapid grower. It has very dark green, shining leaves and purplish blue flowers. Invaluable for covering shaded spots and cemetery work.

var. alba. *White Lesser Periwinkle.* Is similar to the above, with a profusion of milk-white flowers. A very distinct and pretty plant for similar purposes. A free, healthy grower.

WISTARIA

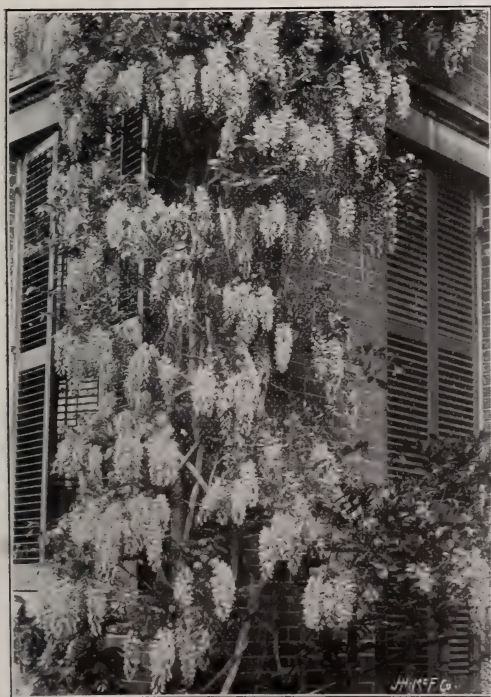
A genus of climbing vines from China and Japan, entirely hardy with us, and exceedingly ornamental when in bloom. They have pinnate leaves and long, drooping racemes of elegant flowers.

W. Chinensis. *Chinese Wistaria.* A very beautiful popular species, with racemes of pale lilac flowers borne in great profusion in May. It is a vigorous climbing vine and creates a fine show when clambering over trees. The stems grow quite large, climb high and twine tightly. The growth is very rapid, frequently at the rate of 15 to 20 feet in a season. Like the hybrid perpetual roses, after its first profuse bloom is over it scatters occasional fine bloom-sprays through summer and autumn.

var. alba. *Chinese White Wistaria.* In all respects similar to the species, except in color of the flowers. The long racemes of bloom are pure snow-white and very attractive. It is a choice introduction and may be highly recommended. When planted near the blue-flowered species the color contrast of the flower cascades is very beautiful.

var. fl. pl. *Double-Flowering Wistaria.* A rare and desirable form. The individual flowers are perfectly double and of a bluish lilac color. In growth and foliage it is similar to the parent species.

W. multijuga. *Japan Wistaria.* A rare and unique climber, quite distinct from the others. The racemes are immense, hanging in very long open clusters of deep blue flowers, and making a charming display. This is the showiest of all on account of the great size and length of the drooping racemes of flowers.



Wistaria Chinensis.



A Hedge of Rugosa Roses.

HEDGE PLANTS

WHETHER for defensive or ornamental purposes, a well-kept hedge forms one of the most attractive features about a residence. A **defensive hedge**, to answer every requirement, should be of rapid growth, hardy, adapted to all soils, bear the shears with impunity, and be well supplied with sharp, strong thorns. Such essentials, we believe, are contained in the **Osage Orange**, more fully than in any other plant used for this purpose.

For **ornamental hedging**, the Evergreens must take precedence, combining, as they do, a cheerful verdure all the year round, rapidity of growth, compactness of form, and a perfect disregard of the shears. "**Evergreen hedges**" may very properly be divided into two distinct classes, which, in the planting, selection of varieties, and after-management, differ very essentially from each other: first, those intended strictly for shelter, or to conceal unsightly objects; and, secondly, the true ornamental hedge. The former require less care, are intended mainly for the unfrequented portion of the grounds, and very frequently need no attention, except an occasional clipping of the stronger branches, and a heading-in of the taller plants.

Among **deciduous trees and plants**, are very many that are admirably suited for hedge plants; and, lastly, flowering shrubs, with their annual wealth of bloom, form exceedingly attractive screens and barriers.

As a general rule of guidance, we offer the following brief hints on their management: After thoroughly working the soil of a strip at least 6 feet wide and as long as the hedge is to extend, open a trench through the middle of the strip, and with a careful person to hold and range the plants, let one or more assistants thoroughly pulverize and fill in the soil about the roots. Before setting, dip each plant in a thin puddle of mud, and place the plants from 15 to 18 inches apart in the row, except **Osage Orange**, **California Privet** and **Cydonia Japonica**, which should be but 9 inches apart.

The following list comprises the leading varieties of trees and plants useful for hedging purposes: For a defensive hedge, the **Osage Orange** seems to combine more elements of success than any other, although not perfect. For creating ornamental effects in gardening, the so-called **California Privet** (*Ligustrum Japonicum*) is decidedly the most popular of all our hedge plants. *Berberis Thunbergii* may be placed next, followed by *Cydonia Japonica*, *Ligustrum Ibota*, *Hibiscus Syriacus* (*Althæa*), and other free-growing shrubs.

Among evergreens, **Norway Spruce**, **Hemlock** and **American Arbor-vitæ**, are the most generally approved by our landscape architects.

ROSES

AS the Rose has always held the foremost rank in the entire list of cultivated plants, and fairly earned the title of the "Queen of Flowers," we have, in accordance with the popular demand for the last forty-two years, made its cultivation a prominent feature in the floral department of our establishment.

We cannot say that we grow every variety known, neither have we the least ambition so to do; but, in justice to ourselves, we desire to state that the list we offer to our customers assuredly embraces all the desirable qualities that any one can justly expect in these lovely flowers. Every new variety that promises to be valuable is put on trial as soon as it is introduced, and, if found wanting in any of the requisite essentials, it is dropped at once to make room for others that we know to be superior.

Class I. Hybrid Perpetual Roses

There can be no question as to the superior value of this group of hardy Roses. They include all the requisites of perfection, except the one quality of being everblooming, and even in this they are not entirely deficient, as some varieties flower occasionally during the autumn months. The numerous kinds, especially of recent introduction, embrace some of the greatest acquisitions to the flower garden, being of the largest size, rich in color, and of delightful fragrance. A strong soil is absolutely necessary to grow them in perfection, and frequent applications of liquid manure early in the season will prove highly beneficial. This class is the **Remontant** of the French growers.

Alfred Colomb (Lacharme, 1865). This fine variety is exceeded in popularity only by its parent, Gen. Jacqueminot. It is quite a free grower, with handsome foliage and a free bloomer. Flowers brilliant clear red, large and full, with a perfect globular form.

Anne de Diesbach (Lacharme, 1858). Sometimes known as *Glory of France*. Of vigorous growth, and forces well. Color clear carmine-rose, large and cupped. Seedling from *La Reine*.

Baron de Bonstetten (Liabaud, 1871). Very deep red and crimson, in the way of *M. Boncenne*, but larger, fuller, and of more vigorous growth.

Baronne de Rothschild (Pernet, 1867). Syn., *Mme. Baronne de Rothschild*. A robust grower, and especially desirable, but difficult to propagate. Beautiful clear pale rose, tinted with white. Very large and double.

Baronne Prevost (Desprez, 1842). One of the finest old varieties, of very robust growth, and an abundant bloomer. Beautiful pale rose, large and full.

Captain Christy (Lacharme, 1874). A beautiful, large, full Rose, very tender flesh-colored. Best of its tint. Moderate grower.

Caroline de Sansal (Desprez, 1849). A fine grower and free bloomer. Color pale flesh, prettily shaded; large and full, with a flattened surface. One of the finest old varieties.

Charles Lamb (W. Paul, 1885). Vigorous in growth, with handsome foliage and hardy habit. Elegant bright cerise-red; beautiful in bud. Blooms through the summer.

Climbing Jules Margottin (Cranston, 1875). A very vigorous sport from the old Rose *Jules Margottin*. Bright cherry-rose; fine form; freely produced. One of the best pillar Roses.

Climbing Victor Verdier (G. Paul, 1871). Another excellent pillar Rose of strong growth, with showy rosy carmine flowers, large, full and abundant.

Clio (W. Paul, 1895). An extra fine new variety of strong growth and a free bloomer. Flesh color, shaded in the center with rosy pink; of globular form and very large. Has received two first-class certificates.

Coquette des Alpes (Lacharme, 1857). A free grower and abundant bloomer. Almost pure white; medium size, good form. Belongs to the Hybrid Noisette class. One of the very best of the whites.

Crown Prince (W. Paul & Son, 1880). Growth vigorous; flowers bright purple shaded with crimson; very large and double. A free bloomer, and said to force well under glass.

Duke of Edinburgh (W. Paul & Son, 1868). Of free growth and bloom. Brilliant scarlet-crimson, shaded with maroon; large and full.

Duke of Teck (G. Paul, 1881). Raised from *Duke of Edinburgh*. A free grower and bloomer. Brilliant crimson-scarlet, of globular form, and very showy.

Elisa Boelle (Guillot, 1870). A moderate grower. White, slightly tinted with rose, changing to pure white; of medium size and fine, full form.

Eugene Furst (Souper & Notting, 1876). A new free-blooming Rose of large size and fine form; velvety crimson, shaded with a deep tint. Beautiful.

Francois (Levet, 1881). Grows vigorously and blooms abundantly, especially during autumn. Color clear pale rose; size medium.



Captain Christy.



Prince Camille de Rohan.

ROSES (Class I), continued

General Jacqueminot (Roussellet, 1855). Unquestionably the most popular Rose for cut-flower work in the entire list. Very vigorous and free-blooming. Brilliant crimson, large, not full, but producing splendid buds.

Gloire Lyonnaise (Guillot fils, 1885). A very strong grower, blooming in autumn. Buds excellent for cutting. White, slightly tinted with yellow in center.

John Hopper (Ward, 1862). An excellent variety of vigorous growth, with large, full, rose-colored flowers having crimson centers. Raised from Jules Margottin.

Jules Margottin (Margottin, 1853). A standard old variety, of good quality. Strong growth; bright cherry-red, large, full, and blooms freely.

La Reine (Laffay, 1843). A valuable, vigorous old Rose. Color rosy pink, tinted with lilac, very large and full, and blooms freely.

Mme. Gabriel Luizet (Liabaud, 1878). Delicate pale pink, large and full. One of the very best of its peculiar color.

Mme. Georges Desse (G. Desse, 1898). Has been termed the striped Paul Neyron. An elegant new variety of very large size; bright red with white stripes.

Mme. Lacharme (Lacharme, 1873). A vigorous variety, with a large flower. White, tinted with pale rose, passing to pure white. Very double and fine.

Magna Charta (W. Paul & Son, 1870). This grand Rose is a strong grower, a very free bloomer, and has magnificent foliage. Color bright pink, suffused with carmine. Very large, full and of excellent form.

Marshall P. Wilder (Ellwanger & Barry, 1884). A beautiful Rose quite similar to Alfred Colomb. Bright cherry carmine, large and full. Free blooming.

Marchioness of Londonderry (A. Dickson & Sons, 1893). A robust grower and free bloomer. Very large, pure white. One of the choicest new Roses.

Marchioness of Lorne (W. Paul & Son, 1889). A vigorous grower and abundant bloomer. Bright rose-color, full, finely cupped and very fragrant.

Margaret Dickson (A. Dickson & Sons, 1891). An exceedingly valuable variety of strong growth, with beautiful dark green foliage. Almost white, with pale flesh in center. Free blooming and very double.

Maurice Bernardin (Granger, 1861). A strong-growing seedling of General Jacqueminot, and quite a free bloomer. Light crimson, large and full.

Monsieur Boncenne (Liabaud, 1865). A very vigorous, free-blooming Rose of excellent quality. Velvety dark purplish red; very double and sweet.

Mrs. R. G. Sharman-Crawford (A. Dickson & Sons, 1894). One of the finest new varieties. Large flower; very prolific, and of free growth. Deep rosy pink.

Mrs. John Laing (Bennett, 1888). A vigorous, free-blooming, fragrant variety of excellent quality. Color satiny rose; very double and finely formed.

Paeonia (Goubalt, 1841). An excellent old Rose, of vigorous growth. Fine reddish crimson; large, full, and freely produced.

Paul Neyron (Levet, 1878). Raised from Victor Verdier, and a vigorous grower. Probably the largest flower belonging to this class. Color dark rose; fine form and habit.

Perle Blanche (Touvaize, 1870). A seedling from La Reine, very vigorous in growth. Double; white, slightly tinted with flesh-color.

Prince Camille de Rohan (E. Verdier, 1861). A fine old Rose. Crimson-maroon, very rich and velvety; large and full. Vigorous.

Tom Wood (A. Dickson & Sons, 1896). A beautiful new Rose; hardy, of strong growth and free-blooming. Large, double flowers of bright cherry-red; finely formed.

Ulrich Brunner fils (Levet, 1882). A seedling from Paul Neyron, of strong growth, with bright cherry-red flowers, very large and full. In all respects a remarkably fine Rose.

Vick's Caprice (J. Vick, 1889). A vigorous, free-blooming, very distinct variety. Bright pink, very prettily striped with clear white. Desirable.

Class II. Everblooming Roses

We group together under the one general heading of Everblooming, all varieties that flower freely throughout the season. It comprises the Teas, Bourbons, Bengals or Chinas, Noisettes and Polyanthas, together with all their numerous intermediate forms and hybrids. As a rule they are not entirely hardy in the northern states without protection, but the dwarfier kinds are readily preserved by cutting the entire plant down in the autumn to within 6 or 8 inches of the ground, and covering with long, strawy stable manure. The exquisite buds produced by some of the varieties, and the delightful fragrance of others, especially the Teas, render them very popular for house plants. They are also especially desirable for planting closely in beds, when they will present a mass of flowers all the season. The Noisette class are adapted for pillars and verandas, being naturally strong growers with beautiful fragrant flowers.

American Beauty (Bancroft, 1885). Although strictly a Hybrid Tea, this elegant Rose is usually classed among the Hybrid Perpetuals, owing to its vigorous growth. Very large, double, bright carmine-red. Fine for forcing.

ROSES (Class II), continued

Bon Silene (Hardy, 1839). One of the very best varieties for cut-flower work. Color bright rose, delicately tinted with fawn, sometimes quite light. The buds are large, rounded, and deliciously scented. A free grower and bloomer.

Bridesmaid. A very valuable new Tea Rose, a sport from the Catherine Mermet. It is a charming, clear bright pink in color, and much superior to its well-known parent. It forces well under glass, and is already very popular with our florists.

Caroline Marniesse (Roeser, 1848). A fine old Noisette Rose and a vigorous climber. White, with a slight flesh-colored tint; free-blooming.

Catherine Mermet (Guillot fils, 1869). Another very desirable variety for forcing under glass. Flesh-color, beautifully shaded, large, full, and of elegant form, with a fine fragrance. It is a free grower and profuse bloomer.

Christine de Noue (Guillot, 1891). An elegant new Tea Rose. Color rosy crimson, center salmon-rose; very double, large, imbricated, fragrant. Vigorous and a free bloomer. Succeeds well under glass.

Chromatella (Coquereau, 1843). Syn., Cloth of Gold. A superb climbing Noisette, especially adapted to the southern states. Flowers very large, double, bright golden yellow. The true variety is scarce in collections.

Climbing La France. A chance sport from the well-known La France; of remarkably vigorous growth, but with flowers similar in every respect.

Climbing Malmaison. A strong-growing variety of the old Souv. de la Malmaison; of an upright, vigorous habit. An excellent pillar Rose.

Clotilde Soupert (Soupert & Notting, 1890). A beautiful Polyantha; white, shaded with pink. A free grower and an exceedingly free bloomer, making a very desirable and showy variety for outdoor bedding.

Devoniensis (Foster, 1838). A very popular old variety, and one of the best for general culture. Color pale yellow to creamy white, large and full, with a fine fragrance.

Duchess of Albany (W. Paul & Son, 1883). Similar to La France, but much deeper in color, larger and a vigorous grower. An excellent variety.

Duchess of Edinburgh (Nabonnand, 1875). An elegant dark variety, either for culture under glass or in the open ground. Probably a Bengal, although introduced as a Tea. Color deep crimson in bud; large and full flower; blooms freely.

Etoile de Lyon (Guillot, 1882). A grand Rose for forcing; of superb form and habit. Color rich saffron-yellow, brighter in the center; very large and full, blooming profusely. Grows vigorously.

Gloire de Dijon (Jacotet, 1853). One of the most valuable old varieties, and especially so for forcing. Very vigorous in growth, forming a good climber. Color yellow, shaded with salmon, very large and full; superb in bud. Useful at the south in the open air.

Golden Gate (Dingee & Conard). A vigorous, free-flowering variety, excellent for bedding. Creamy white with yellow at base of petals; large, double and very fragrant; has long pointed buds.

Hermosa (Manchesau, 1849). This beautiful old Rose is almost too well known and appreciated to need a description. For bedding it is unsurpassed, and quite hardy. Rosy pink; an abundant bloomer.

Kaiserin Augusta Victoria (Lambert & Reiter, 1892). Pure white, with a very pale lemon tint in the center. A grand new Hybrid Tea for forcing under glass. Flowers of large size, full, and produced in great abundance.

La France (Guillot fils, 1857). A Hybrid Tea, with a hardy constitution, moderate in growth, but abundant in bloom. Pale peach-color with rose center; large and full, forming exquisite buds. Fine for forcing purposes.

Little Pet (Henderson, 1879). A pretty little Polyantha Rose, very dwarf and a profuse bloomer. Flowers pure white, very double and cupped.

Mme. Caroline Testout (Pernet-Ducher, 1891). An elegant Rose belonging to the Hybrid Tea class. The color is clear pink, and the fragrance very pronounced. It is in the way of La France, but a superior variety.

Mme. A. Veyssel. A very distinct sport from La France, retaining all the good qualities of the latter, with elegantly striped flowers. Sometimes known as "Striped La France."

Mlle. Augustine Guinoisseau (Guinoisseau, 1890). Sometimes known as "White La France." Almost pure white, with simply a slight tint of flesh-color. In all other respects, the same as its parent, La France.

Maman Cochet (S. Cochet, 1893). A very popular variety for bedding out in the open ground, as well as for pot culture during summer. Salmon and clear rose beautifully blended. Large double flower and splendid bud with stout stems.

Marechal Niel (Pradel, 1864). This superb climbing Rose retains its popularity for cut-flowers when forced. Flowers large and full, rich deep yellow, with a delightful odor. The buds are all that could be desired.

Marguerite Appert (Guillot, 1897). A free-blooming Hybrid Tea, of very large size and good form. Brilliant red, darker at base of petals. A valuable new variety, furnishing superb red buds.

Marion Dingee (Dingee & Conard Co., 1892). An exceedingly valuable Rose for outdoor bedding, as it blooms continuously all summer long. Color bright crimson, large and full.

Medea (W. Paul & Son, 1892). A grand Tea Rose; clear, bright lemon color with canary-yellow center. Large, full, globular flowers.

Meteor (Geschwind, 1887). A new forcing variety of vigorous growth. Dark velvety crimson, remarkably fine in bud. Habit and constitution of the best.

Mosella (Lambert & Reiter, 1896). One of the newer Polyantha Roses, with very double little flowers. White with a yellow center; tinted with rose.

Mrs. Bosanquet (Laffay, 1832). An excellent old Rose of the Bourbon type; hardy, and a free bloomer. White and salmon; quite fragrant.

Mrs. Robert Garrett (Cook). An elegant new Rose of the Hybrid Tea class; delicate soft pink, both in flower and bud. A vigorous grower and free bloomer.

Mrs. Robert Peary (Dingee & Conard, 1898). A valuable new hardy white climbing Rose, raised from Kaiserin Augusta Victoria. It is a strong, rapid grower, with large, double flowers.

Muriel Graham (A. Dickson & Sons, 1897). An elegant new sport from Catherine Mermet. Pale cream, with a faint blush; very distinct. One of the best for forcing purposes.



Souvenir du President Carnot.

ROSES (Class II), continued

Niphetos (Bougere-Breton, 1843). One of, if not the most popular Rose for forcing under glass. A vigorous grower and very free bloomer, producing exquisite, pure white, long-pointed buds. Flowers large and fine.

Papa Gontier (Nabonnand, 1883). A valuable variety for forcing under glass; of excellent substance and very prolific. Color dark crimson with rosy carmine center.

Perle de Lyon (Ducher, 1873). Vigorous and a free bloomer. Flower of fine size, very fragrant; clear yellow or apricot, sometimes orange.

Perle des Jardins (Levet, 1874). Another free-growing variety, justly popular for cut-flowers. Straw-color, sometimes canary yellow, center orange-yellow. Very large and beautiful buds.

Rainbow. A sport from Papa Gontier, with the flowers beautifully striped. Excellent for bedding purposes. Blooms well in the open air. Vigorous.

Reine Marie Henriette (A. Levet, 1878). A very free-growing climber, belonging to the Tea class. Flowers large and full in the way of Gloirie de Dijon. Color bright cherry-red. Excellent.

Safrano (Beauregard, 1839). A very popular old Rose for forcing under glass, chiefly valued for its exquisite apricot buds. Blooms freely and grows vigorously.

Solfaterre (Boyeau, 1843). Although long cultivated, this charming Noisette is still held in the highest repute, especially at the south. It is a vigorous grower and free bloomer. Large and full, fine sulphur-yellow.

Souvenir d'August Metral (Guillot, 1897). An elegant new Hybrid Tea, with large red buds and large, double red flowers. Very fragrant and fine.

Souvenir de la Malmaison (Beluze, 1843). This justly popular old variety is a good grower and bloomer, especially in the open air. Flowers large and very double. Clear flesh color with blush edges.

Souvenir de Wootton (Cook, 1889). A fine Hybrid Tea of native origin. Color bright crimson, blooms freely, forces readily, and is an excellent sort for florists' use.

Souvenir du President Carnot (I. Pernet, 1895). A free-blooming, vigorous Hybrid Tea. Delicate flesh color, shaded with white. Makes a superb bud, and beds well in the open ground.

Sunset (Henderson, 1884). A well-marked sport from Perle des Jardins, producing flowers of a rich shade of saffron and orange, prettily blended. Large, full and double, with handsome buds.

The Bride (May, 1887). A beautiful pure white sport from Catherine Mermet; very double, of good shape, and forces well. This is decidedly one of the most valuable introductions of later years. It is also remarkably free blooming.

White Maman Cochet (Cook, 1898). A sport from Maman Cochet, having all the excellent qualities of the parent. The white flowers have their outer petals tinted with pale rose or pink.

White Marechal Niel (Deegan). This is a distinct sport from the old Marechal Niel, with creamy white flowers. Will be a valuable Rose at the south.

William Allen Richardson (Ducher, 1879). A strong-growing Noisette, producing freely fine orange-yellow flowers of medium size; full, distinct and beautiful. An excellent climber.

Class III. Moss Roses

When well grown the Moss Roses are among our most valuable decorative plants, but too often we see them neglected until they become weak and produce miserable blooms. No class requires or deserves a richer soil than this. Pruning should always be thorough, so as to induce a strong growth of young wood, and, consequently, a bountiful supply of luxuriant foliage and large rich flowers. The greater portion of the Moss Roses are only annual bloomers, but a few really good kinds are known as "Perpetual," and bloom occasionally during the autumn.

As a rule they are all quite hardy and will survive without protection, although a liberal mulch of long strawy manure in the autumn will prove highly beneficial as a protection to the roots during winter.

Blanche Moreau (Moreau-Robert, 1881). A desirable novelty in the Perpetual section. Pure white, large, full, and of perfect form; the buds and flowers produced in clusters, and well furnished with deep green moss. Excellent.

Comtesse de Murinais (Vibert, 1843). An excellent Perpetual white Moss Rose, large and double, of free growth, flowering abundantly during autumn. Probably the best of its color. The buds are beautiful.

Crested or Cristata (Vibert, 1827). Properly a Hybrid China, with superb large crested buds. Of clean, moderate growth, hardy constitution and free-blooming habit. Flowers large and full, beautiful rose color. Only budded plants furnished.

Glory of Mosses (Vibert, 1852). A dwarf and moderately good grower, with luxuriant foliage. Flowers very large and double, pale rose-colored and very attractive.

Luxembourg (Hardy). Very strong-growing, well mossed, with large, very double, deep crimson flowers. An attractive old Rose.

Princess Adelaide (Laffay, 1854). An excellent standard variety. Vigorous and abundant blooming; flowers of medium size, full, pale rose color.

Raphael. A fine autumnal bloomer, of moderate growth, with luxuriant foliage and very mossy. Color pale rose; very large and double.

Salet (Lacharme, 1854). A free-flowering Perpetual Rose and very popular. Bright rose, with blush edges; full, globular, medium size, quite mossy; blooms in clusters.

William Lobb (Laffay, 1856). An excellent old Moss Rose of vigorous growth. Flowers of medium size, carmine, shaded with violet; distinct and showy.

Class IV. Climbing Roses

Under this heading we group Roses quite dissimilar in character, but all of which climb freely. It includes the popular Prairie Roses, highly valued for their rampant growth and profuse bloom during early summer, although not perpetual flowering. The comparatively new class of Ramblers are of the greatest value to florists, as they are unquestionably hardy, vigorous growers and prolific annual bloomers.

A few Perpetual flowering varieties have been included, although really belonging to the Everbloomers, and where such occur it has been found necessary to list them under two distinct headings. Within the last few years, our American hybridizers have been originating quite a number of valuable new forms, and the most esteemed of these will be found in the list below.

Baltimore Belle (S. Feast, 1843). One of the most desirable Climbing Roses. Flowers very distinct, almost white, with a faint pink tint; a strong, healthy grower.

Climbing Hermosa. Although strictly an Everblooming Rose, its decidedly hardy constitution and exceedingly vigorous character fully entitle it to a place in this list. It is a sport from the popular old Hermosa.

Crimson Rambler (Turner, 1894). No introduction of later years has so suddenly and permanently become popular as this superb variety. It is at once thoroughly hardy, a prodigious bloomer, an extremely vigorous climber, and the lovely little double crimson flowers, borne in enormous clusters, render it indispensable in the smallest collection. As a pot-plant it has proved very superior and unique, forcing with little trouble. Suitable for any use for which decorative flowers are needed.

Dawson (Jackson Dawson). This charming hybrid was raised from seed of Multiflora crossed by Gen. Jacqueminot. It is a vigorous plant, with long shoots, covered during the blooming season with pretty clusters of fragrant, bright pink, semi-double flowers. Very desirable.

Empress of China (Jackson & Perkins, 1893). A valuable novelty, blooming continuously all the season, and forming shoots six to eight feet long in one year. Entirely hardy, and free-blooming in the autumn. Color rosy red or pink; slightly fragrant; medium size.

Eugene Jardine. A valuable climbing Rose, vigorous in habit, and undoubtedly hardy. It blooms singly, with large, double flowers; pale creamy white, with pink center.

Gem of the Prairies (Burgess, 1865). Differs from all others of its class in possessing a fine fragrance. Color bright violet-crimson; large and very double. A decidedly good climber.

Greville (Syn., Seven Sisters). A popular old Rose, producing large clusters of bloom, the individual flowers being very different in color, and varying from light to dark red.

Helene (Lambert, 1899). An elegant novelty grown from Crimson Rambler and said to be an improvement on the latter. It is claimed to be as vigorous as its parent, with all its other excellent qualities; color a warm, rich satiny pink. The flower is said to be larger than the type.

Manda's Triumph (Manda). One of the new Wichuraiana hybrids, producing freely large clusters of medium-sized, pure white, fragrant flowers. Very double and handsome. Foliage dark green and glossy.

Multiflora. See special list of Rose species.

Pink Rambler (Lambert, 1896). The Euphrosyne of some lists. Free-blooming; strong and healthy in growth; flowers clear bright pink, in large clusters. A very desirable hardy climber for porticos, etc.

Pink Roamer (Manda). Another of the Wichuraiana hybrids, with fine clusters of handsome, single, pink, very fragrant flowers. This fine Rose has been highly recommended for its many good qualities.

Pissarti. See special list of Rose species.

Queen of the Prairies (S. Feast, 1843). Perhaps the most popular of the climbing Roses. It is a very vigorous grower, with ample, healthy foliage, and produces large trusses of bright red flowers, with occasional white stripes on the petals.

Reine Marie Henriette. See Everblooming Roses.

Setigera. See special list of Rose species.

South Orange Perfection (Manda). A pretty hybrid from Wichuraiana, with double white flowers in clusters; blooms very profusely and is of vigorous growth. One of the best of its class.

White Rambler (Lambert, 1896). *Thalia* of some lists. It is a strong, rampant grower, producing large clusters of small double white flowers in great profusion. Very desirable.

Wichuraiana. See special list of Rose species.

Wichuraiana hybrida (Jackson Dawson). A new hybrid raised from *R. Wichuraiana* and *R. rugosa*, partaking somewhat of the characters of both parents. It is not a strong climber, but is healthy and distinct in habit. Foliage slightly larger than that of *R. Wichuraiana*, with the same glossy surface, and the wood very prickly. Flowers freely, pale flesh color, single and attractive.

William C. Egan (Jackson Dawson, 1900). We have here an entirely new, distinct, and very desirable candidate for a position in our list of choicest climbing Roses. Being convinced of its many excellent properties, we have grown a large stock of healthy young plants and take special pride in their dissemination. This Rose was produced by crossing Gen. Jacqueminot on *R. Wichuraiana*, but shows no trace of either in its bloom. The habit of the plant is subclimbing, but vigorous and healthy, with very bright glossy foliage. The flower is large and very full, resembling in shape as well as color *Souvenir de la Malmaison*. Although only an annual bloomer, it remains in flower several weeks, and the large trusses of superb blooms are unusually attractive. Mr. Dawson considered this the best of all his numerous hybrids. It is unquestionably hardy and reliable.

Yellow Rambler (Lambert, 1896). *Aglaia* of former lists. A very strong-growing valuable climber of free-blooming habit. The large bloom clusters are composed of white flowers with yellow centers, opening pure white. It is a hardy and very desirable Rambler.

Class V. *Rosa alba*, White Roses

Although blooming but once in the season, this class has been heretofore too much neglected. They richly deserve a place in any well-kept garden. They are all quite hardy, and bloom profusely during the month of June. The following is the only variety we offer at present:

Mme. Plantier (Plantier, 1835). A very vigorous grower and most profuse bloomer. Flowers fully medium in size, pure white and very double. It is very popular for cemetery planting, requiring little care after being once established. Beautiful ornamental hedges are constructed of this variety, its dense habit of growth fitting it well for that purpose.



Persian Yellow.

Class VI. Austrian Roses

Highly popular on account of the color of the flowers, which are of various yellow tints in the different species. They are entirely hardy, and bloom during the month of June only. In spring remove all dead wood and prune back the vigorous shoots, so as to induce more flowering buds. Fertilize the soil liberally, and stir the surface early in the season to promote active growth. We offer only budded plants, owing to the impossibility of growing them on their own roots.

Harisson's Yellow (Harissoni). A slender but vigorous grower, with distinct golden yellow flowers. Blooms profusely and is entirely hardy.

Persian Yellow (Willock, 1833). A free grower, producing long slender shoots, with small bright green foliage. Flowers medium in size, double and very attractive; blooms freely on the wood of the previous year.

Class VII. Rugosa Roses

A species of Japanese plants of easy culture and entirely hardy, with large single flowers. Some of the newer hybrids have conspicuous double blooms, but are not so showy as the species. Very handsome in the shrubby border; glossy leaves, and large bright red seed-pods in autumn.

Rugosa (Thunberg). See special list of Rose species.

Rugosa alba (Thunberg). Similar to the species, but with pure white, single flowers. It is very valuable for massing as a flowering shrub, and blooms occasionally throughout the season. Hardy and fine. Shown on page 46.

Agnes Emily Carman (Carman). Originated by crossing Persian Yellow on *R. rugosa*. The flowers are very abundant, bright crimson, and are produced frequently all summer long. It is a very strong-growing, hardy variety, and valuable.

Dawson's hybrid rugosa (Jackson Dawson). This distinct form sprang from Gen. Jacqueminot crossed on *R. rugosa*. Although it retains the character of the latter parent in all else except the color of its flowers, the brilliant crimson-scarlet bloom is well worthy of perpetuation. It is exceedingly conspicuous in a collection.

Mme. Georges Bruant (Bruant, 1888). The most valuable characteristic of this fine hybrid between *R. rugosa* and Sombreuil is its charming long, pointed, pure white buds. It blooms freely all summer long. Very vigorous and hardy.

Class VIII. Sweetbrier Roses.

This is the *Rosa rubiginosa* of botany, and is indigenous to Great Britain, although naturalized in many places in the United States. It is of value to the florist on account of the rich, spicy fragrance of its foliage and its hardy constitution. Foliage small.

Common Sweetbrier. Growth very vigorous, forming a tall bush. Branches thickly clothed with numerous prickles. Flowers of medium size, pale rose.

LORD PENZANCE'S HYBRID SWEETBRIERS

Amy Robsart. Charming deep rose.

Anne of Geierstein. Rich dark crimson.

Brenda. Delicate shade of peach.

Flora McIvor. White, tinted with rose.

Meg Merrillies. Bright crimson. Distinct.

Rose Bradwardine. Beautiful rose color.

Class IX. Species of Roses

It is only within recent years that single-flowering Roses have been appreciated. Modern systems of gardening now demand their extensive use in the formation of large parks and pleasure grounds. They convey an exceptional sense of natural methods, and their multitude of dainty flowers is always pleasing.

Rosa Carolina. *Swamp Rose*. A native species, common in low grounds. It is a strong-growing, free-flowering shrub, with an abundance of bloom during early summer. The pale pink flowers are arranged in corymbs.

R. humilis (Syn., *R. lucida*). *Dwarf Rose*. This is the low-growing native species found along roadsides, etc., in dry or rocky soil. It is a pretty little plant with pink or pale rose-colored flowers.

R. moschata, var. Pissarti. *Pissart's Rose*. A vigorous variety, with pure white, semi-double flowers in profusion. Imported from Persia, but quite reliable with us, and very desirable in large collections.

R. multiflora. *Many-Flowered Rose*. A native of China and Japan, forming a vigorous climbing shrub and blooming in corymbs of pale red, single flowers. It is quite hardy, and the profusion of bloom renders it very desirable.

R. rubiginosa. *Sweetbrier, Eglantine*. A rather slender but rapid-growing species. Leaflets doubly serrate and highly aromatic. Flowers mostly pink. For descriptions of the newer hybrids, see Class VIII.

R. rugosa (Thunberg). A sturdy shrub, with large, deep green wrinkled, glossy foliage and a succession of bright rose flowers all summer long.

R. setigera. *Prairie Rose*. This native species in its natural wild state is a beautiful shrub. Flowers in large corymbs, rose-colored, single and attractive.

R. Wichuraiana. *Memorial Rose*. A charming trailer from Japan; produces numerous clusters of white fragrant flowers in July. Very hardy and vigorous.



Aquilegia Canadensis.

HARDY PERENNIALS

Under this heading we group a choice collection of hardy plants, any of which will be sure to give entire satisfaction to all lovers of flowers. Good light garden soil is sufficient for the majority of the species, and a slight coat of long strawy manure during winter will be all the protection they need. Many species show to great advantage on a rockery, and all make a beautiful show when grouped together in a bed.

Achillea Millefolium rubrum. Reddish flowers.

A. serrata, "The Pearl." Charming double white flowers.

A. tomentosa. Dense woolly foliage and yellow flowers.

Althaea rosea. *Hollyhocks.* Fine double varieties. All colors.

A. rosea var. Allegheny Hollyhocks. A new strain, with very large fringed flowers. Several colors. Double.

Amsonia salicifolia. Bright blue flowers in terminal clusters.

Anthemis tinctoria. *Chamomile.* Pale yellow flowers; blooms all the season.

Anthericum liliastrum. *St. Bruno's Lily.* Fragrant white flowers; narrow leaves.

Aquilegia Canadensis. Native species, with red flowers.

A. chrysantha. Large yellow flowers, with long spurs.

A. coerulea. Large; blue and white, with long spurs.

A. glandulosa. Blue, with white tips. Siberia.

Arenaria stricta. Small dwarf plant; pure white; for rockwork.

Aruncus Aruncus (Syn., *Spiraea Aruncus*). *Goat's Beard.* Tall, with white flowers in long, loose panicles.

Asclepias tuberosa. *Butterfly Weed.* Bright orange bloom.

A. incarnata. Beautiful flesh-colored bloom.

Aster. A choice assortment. Blooms in autumn; very showy; mostly blue.

Astilbe Japonica. Numerous panicles of pure white flowers.

Campanula. Several distinct species. Hardy and very attractive; white and blue bells.

Cassia Marylandica. *Wild Senna.* Three to four feet high, shrub-like, with yellow flowers.

Cerastium oblongifolium. Flowers pure white; fine for rockwork.

Chrysanthemums. One of the finest of florist's flowers. Our collection is very rich in the three classes of Pompones, Chinese and Japanese varieties.

Coreopsis. Two species. Tall plants, with golden bloom.

Delphinium. *Larkspur.* Several beautiful varieties.

Dianthus Barbatus. *Sweet William.* All colors mixed.

D. hortensis. *Garden Pink, Her Majesty.* Double, pure white.

Dicentra eximia. A rare native species, with pink bloom.

D. spectabilis. Tall, early, rosy pink flowers; very fine.

Dictamnus fraxinella. 1 to 2 feet high. Pale purple flowers in early summer.

Digitalis purpurea. *Foxgloves.* White and pink colors.

Euphorbia corollata. Flowers small, white and pretty.

Funkia. Four distinct species, different colors.

Gaillardia grandiflora. Beautiful red and yellow bloom.

Geranium sanguineum. Bright red flowers; fine.

Helianthus. *Sunflowers.* Two species; yellow flowers.

Heliopsis Pitcheriana. Has deep yellow blooms all summer.

Hemerocallis. Several elegant species. Yellow and orange bloom.



Iris Kämpferi.

HARDY PERENNIALS. continued

- Hibiscus Moscheutos.** Very large white or pink flowers. Plant 4 or 5 feet high.
- Heuchera sanguinea.** Bloom crimson-scarlet; elegant.
- Iris Germanica.** *German Flag.* Many beautiful colors, assorted. Also several botanical species of merit, including *I. Sibirica* and varieties.
- I. Kämpferi.** Japanese species. Imported direct from the growers in Japan. An elegant assortment of colors.
- Liatris.** Three species. Tall spikes of purple bloom. Natives.
- Lobelia cardinalis.** Stem erect, with brilliant scarlet bloom.
- Lychnis chalcidonica fl. pl.** Bright scarlet, double; blooms in clusters.
- Lysimachia clethroides.** Beautiful white flowers.
- Lythrum roseum superbum.** Long spikes of purple bloom.
- Mertensia Virginica.** *Lungwort.* Rich purplish blue flowers in May.
- Monarda fistulosa.** *Wild Bergamot.* Very showy purplish red flowers.
- Nymphaea odorata.** *Water Lily.* Pure white, very fragrant.
- Opuntia Rafinesquii.** A hardy trailing Cactus. Large yellow bloom; very showy.
- Pachysandra procumbens.** Very dwarf; blooms early; white.
- Paeony.** Several elegant Belgian varieties.
- Pardanthus Chinensis.** *Blackberry Lily.* Flowers orange-color.
- Passiflora incarnata.** A hardy native *Passion-Vine*, with flesh-colored flowers.
- Pentstemon barbatus Torreyi.** Very tall, long racemes of bright scarlet flowers.
- P. digitalis.** Large, showy, bell-shaped pale flowers.
- Phlox maculata hybrida.** *Garden Phlox.* An elegant variety imported from the best European collections. All colors named.
- P. paniculata.** Flowers mostly pink; very pretty.
- P. subulata.** *Mountain Pink.* Creeping, with pink bloom. One of most beautiful low plants for borders or edgings.
- P. subulata alba.** Similar to the above, but snow-white.
- Physostegia Virginiana.** *Dracocephalum.* Pale rose-color.

Platycodon grandiflora. *Campanula.* Pale blue flowers.

Plumbago Larpentae. *Lady Larpent's Leadwort.* A low, creeping plant, with rich deep blue flowers. Excellent for rockwork.

Polemonium reptans. Corymbs of pale blue flowers. Native species.

Rudbeckia. Three fine species for late summer. Yellow.

R. laciniata fl. pl. *Golden Glow.* One of the most popular of hardy perennial plants, especially for cutting. Flowers on long stems, very double, bright golden yellow color. Hardy and reliable.

Saponaria Caucasica fl. pl. *Soapwort.* About 2 feet high, with double rose flowers.

Saxifraga crassifolia. Hardy, blooms very early; flowers pink; leaves succulent.

Sedum spectabile. Beautiful heads of pink bloom.

Silphium laciniatum. Deeply cut leaves and large yellow flowers on tall stems.

S. perfoliatum. Several feet high; flowers bright yellow.

Solidago. *Goldenrod.* Yellow flowers. Several species.

Thalictrum aquilegifolium. Attractive foliage, in large panicles of pale lemon-colored flowers.

T. flexuosum. 2 to 3 feet high. Yellow, fringe-like flowers.

Tradescantia Virginica. *Spiderwort.* Several kinds.

Ulmaria rubra (Syn., *Spiraea lobata*). A native plant, with purplish pink flowers in June and July.

U. Ulmaria (Syn., *Spiraea Ulmaria*). *Meadow Sweet.* European species, with pure white flowers.

U. Ulmaria variegata. Leaves striped with yellow.

Veronica. A fine species, with spikes of deep blue flowers.

Viola odorata. *Sweet-Scented Violets.* All the choice varieties are kept in stock.

V. variegata. Curiously striped flowers. Quite showy.



A clump of Phlox paniculata.



Beds of Phloxes and Ornamental Grasses.

ORNAMENTAL GRASSES

Erianthus Ravennae. *Plume Grass, Hardy Pampas Grass.* A native of southern Europe, but quite hardy with us, forming tall clumps, with long silky panicles of a whitish or violet color. It is very plume-like in autumn and exceedingly ornamental in our cultivated grounds.

Gynerium argenteum. *Pampas Grass.* From South America, and not quite hardy at the north. It is a superb plant, with a flowering stem 6 to 12 feet high, bearing long silvery white panicles. Requires to be amply protected in a cool greenhouse over winter.

Miscanthus sinensis (Syn., *Eulalia Japonica*). This very ornamental Grass, popularly known in the nurseries as *Eulalia*, forms a large clump of long recurved green leaves, with flower-stems 5 or 6 feet high, bearing curious curled panicles on their summits. It is hardy and desirable for clumps and masses.

var. variegata. *Variegated-Leaved Eulalia.* This elegant form differs from the species in having its leaves all striped lengthwise with pure white lines. It is especially appropriate for planting among belts

MISCANTHUS, continued

of shrubbery and makes an attractive specimen on the lawn.

var. Zebrina. *Zebra-Leaved Eulalia.* A singular variety, with the leaves striped crosswise, differing in this respect from other variegated-leaved plants. It is a stately Grass, luxuriant in growth, and attractive in appearance. Hardy and reliable.

M. gracillima univittata (Syn., *Eulalia gracillima*). A charming species, distinct and very graceful in character. It forms large clumps of long, narrow leaves, bright green with the mid-rib of a whitish tint. As a single specimen on the lawn it is unique.

Panicum virgatum. A beautiful native species, 3 or 4 feet in height, with deep green leaves and delicate, graceful open panicles of very pretty flowers. It is readily grown, and makes an excellent contrast to the foregoing Grasses.

Phalaris arundinacea picta. *Ribbon Grass.* A distinct variegated variety of a common native species, having its leaves elegantly striped with white. It is a low-growing plant, spreading in character and useful for garden decoration.



BULBS AND TUBERS



Single Tulips.

Class I. Hardy Bulbs

All bulbs enumerated in this class should be planted in the autumn to insure good results. The soil should be rich, light and thoroughly drained. Dig deeply and pulverize perfectly. In planting, set the bulbs from 2 to 6 inches deep, depending upon their size, and envelop each in pure sand.

For pot culture, give good drainage in a 4- or 5-inch pot, and use a soil composed of rotted sods, bar sand, and decomposed manure. About one-third of the bulb should be above the surface of the soil, and the base must rest upon pure sand. Allow them to remain cool and moist in a dark place until the roots have almost filled the pots. Gradually give them heat and light, and water sparingly at first. From 1 to 5 or 6 bulbs may be used to a pot, according to size.

Bulbocodium vernum. *Spring Meadow Saffron.* Blooms very early. 4 to 6 inches high. Pale violet.

Convallaria majalis. *Lily-of-the-Valley.* An old garden plant, with numerous small fragrant white bells. Likes shade.

Crocus. One of the earliest of our spring flowers. Several colors assorted.

Crown Imperial. A tall plant, with clusters of large, drooping, showy bells near the summit. Blooms early in spring.

Galanthus nivalis. *Snowdrop.* The earliest of all our spring flowers. Pure white bells. Very dwarf. Single and double.

Hyacinths, Single and Double. Named varieties and assorted colors. Undoubtedly one of the finest of hardy bulbs.

Jonquils. Blooms early. Flowers yellow, delightfully fragrant; dwarf.

Leucojum aestivum and vernum. *Summer and Spring Snowflakes.* White bells with green tips.

Lilium. The queen of bulbs. The following Lilies are all hardy, bloom freely, and are easily grown.

L. superbum. Native. Beautiful rich orange-spotted, pendent flowers.

L. tigrinum. *Tiger Lily.* An old garden plant, with orange-spotted bloom.

L. umbellatum. Bright red, with small black spots. Very distinct.

Muscari. *Grape and Feathered Hyacinths.* Numerous little purple bells, with an agreeable fragrance.

Narcissus. An old garden flower that has various beautiful tints of yellow and orange. Several varieties, named.

Scilla. Small, early-flowering bulbs, bright or deep blue in color. Two kinds.

Tulips, Single, Double and Parrot. A splendid collection, embracing all colors and markings. Named or mixed.

Class II. Tender Bulbs

Caladiums. Plants with arrow-shaped leaves, elegantly variegated. Suitable for pot culture only.

Cannas. Strong-growing plants, unexcelled for sub-tropical bedding. Several splendid varieties named.

Colocasia esculenta. Robust, with enormous leaves. Requires plenty of water and a rich soil.

Dahlias. We offer a complete collection of both large and small-flowering kinds.

Gladiolus. Summer-blooming bulbs of every imaginable color. A choice set of named as well as mixed kinds.

Oxalis. Greenhouse bulbs, requiring very little heat. Excellent for baskets, etc.

Tigridia. *Tiger Flowers.* Excellent for bedding purposes.

T. conchiflora. Yellow.

T. grandiflora. Red.

Tritoma. Often called *Red-Hot Poker Plant*, in allusion to its large orange-scarlet spikes of flowers.

Tuberose, Double Italian. Very popular for its spikes of creamy white fragrant flowers.

T. Pearl. A newer variety, dwarfer in growth.



Dahlias.



A BRANCH OF BITTERSWEET BERRIES (*Celastrus scandens*)

This popular climber is laden with bright fruit until late in winter.
It is more fully described on page 42.



Hoopes, Brother & Thomas

Maple Avenue Nurseries

WEST CHESTER : PENNSYLVANIA